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In 1943 New York City undertook research on retarded readers in the junior high schools. Goals included trying to determine why a large number of pupils with average or better intelligence reach junior high school with retardation of several years in reading level, and the types of remedial instruction materials needed.

Special programs are sometimes arranged, such as scheduling classes or exchanging children among classes for remedial periods. Sometimes children within a group are put together for a reading class, or individual help is given. Some schools have special classes for remedial reading. Some thought English teachers should be trained to teach this course. Supplies and materials were needed and there was an insufficient amount to be had.

The following recommendations were made: 1. Severely retarded readers should be given out-of-class instruction. 2. A program designed to train junior high school teachers in methods of teaching reading should be instituted. 3. A consistent effort should be made to develop and supply appropriate reading materials. 4. A developmental reading program should be specifically provided in regular classrooms. 5. The departmentalized program of instruction in the junior high school should be re-evaluated. 6. Child guidance services should be expanded so that they are more available for retarded readers. 7. The possibility of formulating a new position for "Teachers of Reading" should be explored.

A list of materials to be used for remedial reading in the junior high school is appended.

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A Guide for Supervisors and Teachers

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Introduction

In the spring of 1943, plans were made to establish a Reading Guidance Center for Junior High Schools to be opened some time in the fall of 1944 under the supervision of the Division of Instructional Research. This project was originally requested by Mary A. Kennedy, Assistant Superintendent in the Junior High School Division. Eugene A. Nifenecker, then Director of all research divisions, agreed to undertake the project.

The general aim was to make a cooperative study of children needing educational adjustment—with emphasis on reading and other related phases of the language arts. The specific purposes of this study were:

- To determine why an appreciable number of pupils with average or better intelligence reach the junior high schools with reading levels indicating retardation of several years
- To determine the type of instruction required by such children and the types of materials needed for such instruction
- To stimulate interest in better reading instruction
- To study procedures for organizing programs in the schools which aimed to handle the problem of the retarded reader more adequately
- To initiate a teacher-training program in connection with the projects of the Reading Guidance Center

The offices in the annex of the Bureau in Junior High School 65, Manhattan, were used by the Bureau personnel as a Reading Guidance Center where materials were displayed, conferences held, and consultation service given to teachers and supervisors interested in the problem of the retarded reader. Three junior high schools were selected for tryout of the program—12, 60, 65, Manhattan. These schools were chosen because they were about average in character and because they were located conveniently near the Center. The project began in October 1944 but did not get well under way until the fall of 1945. During this period, the Bureau staff could give only part of their time to the project because of other research assignments; also because of the delay in painting and renovating, the offices at Junior High School 65 were not available for full-time occupancy.

Teachers were selected in each of the three schools and schedules of periods for reading instruction were arranged. A Bureau staff member was assigned to each school in order that she might work intensively with the selected reading teachers. A psychologist was assigned to the project to study special cases, to help with their adjustment, and to gather data which might throw light upon the important problem of the retarded reader facing practically all junior high school teachers and administrators.

The Bureau furnished various types of psychological equipment, instructional material for the pupils, and teacher reference material. The Junior High School Division arranged for a special allotment for experimental purposes and these funds continued throughout the years of the study.

It was decided to concentrate on the incoming seventh year pupils for the most part. City-wide test results were available and these were used for first screening of pupils. This expedited the referrals for further examination and instruction. Because of the shortage of technical personnel, the limited number of periods assigned for remedial work, and the need for intensive training of the reading teachers, only a very small number of pupils were selected for intensive work for the remainder of the first term. It was planned to take the most seriously retarded pupils first. Intensive psychological examinations were given to as many pupils as possible and careful study of all available records was made. Most of the pupils selected were two or more years retarded in reading. Interpretations of the findings were given to the special teachers. Cooperation of clinic agencies was obtained; e.g., New York Eye and Ear Infirmary, Bureau of Child Guidance.

The teacher-training program involved the following approaches: interpretation of test results; introduction to techniques of diagnosis; intensive study of individual cases—including interpretation of psychological reports; introduction to instructional approaches—including selection and evaluation of reading materials to be used according to the needs. This training was carried on in the schools and at the

Reading Guidance Center where opportunities were given to examine the special equipment and instructional materials on display.

As the program progressed, more reading teachers and correspondingly more periods were added. In the original selection (1945-1946) there were five reading teachers in the three schools; during 1946-1947, twenty-four teachers were included. Thus, many more pupils were reached. Class teachers frequently received the benefit of consultation service on problems involving instructional methods and grouping of pupils—particularly the teachers of adjustment classes. A special study of one adjustment class was made in Junior High School 65 which resulted in certain changes in policy regarding adjustment classes in the school. The results of this special project pointed out the need for: (1) more accurate study of the intelligence levels of the pupils in adjustment classes in order to provide a better basis for selection; (2) reorganization within the class for purposes of instruction adapted to the individual needs of the pupils.

In the spring of 1946, it was decided to prepare an exhibit of materials and suggestions for remedial instruction. This exhibit was designed for the purpose of helping all the junior high schools by acquainting them with the program, with new materials, and by giving consultation service when requested. The exhibit was tried out in May and June, and in the fall of 1946 all schools were invited to visit the Center. Schedules were arranged with the assistant superintendents so that interested teachers in each district would have the opportunity of spending several hours during school time to study the materials on display and consult with the Bureau staff concerning their problems. In December 1948, the exhibit was reorganized and continued through June 1950. The new exhibit was based on the problems and questions submitted by teachers and supervisors who visited the earlier exhibit. Major emphasis was placed on techniques for adapting basic teaching procedures and materials to the retarded reader in the junior high school and the reasons for, and values in, these techniques. Other subject areas were included and also material pertinent to the teaching of the non-English speaking child. The total number of visitors over the four year period was 2,305. This number included: teachers and supervisors in the New York City school system; students and educators in New York City outside the school system; students and educators from other cities of the United States and from foreign countries.

In the fall of 1947, at the request of the Junior High School Division, it was decided to expand the program to include nine additional schools. An invitation was extended to about twenty junior high schools and most of them indicated a desire to participate in the special reading program. An informal survey of fifteen junior high schools was made in October and November 1947, and the following were selected for inclusion in the project: 30, 52, 99, 101, 120, 139, 165, 171, Manhattan; 29, Brooklyn. The training program and setup of the work in these schools were similar to those of the three original schools. Each school, however, presented different problems—in pupil personnel, teacher personnel, space, physical equipment, instructional materials, and the like.

In the fall of 1949, the following junior high schools were added to the project: 10, Bronx; 96, 115, 136, 164, Manhattan; 84, Brooklyn. Including the three original experimental schools, there were altogether eighteen junior high schools conducting some kind of special reading program organized and supervised by the Bureau staff. As of September 1950, seven of these schools had an extra teaching position for reading (96, 136, 139, 164, 171, Manhattan; 10, Bronx; 84, Brooklyn).

Inasmuch as the services of only one psychologist were available for this project for the greater part of the time (see list of personnel below), the psychological work was limited to only four schools in the expansion program—30, 99, 165, 171, Manhattan. Previously the psychologist had worked intensively in the three experimental schools.

The length of time for the project varied in each school. Toward the end of June 1950, a considerable number of the schools were on a consultation basis only, especially those that entered the project early or that did not have severe problems. In addition to the eighteen schools officially in the project, from time to time a number of junior high schools requested help and received limited service from the Bureau staff members. These schools were: 55, Bronx; 6, 64, 128, 223, Brooklyn; 42, 73, 141, Queens. Assistance was given in setting up the program and in ordering materials. These programs, however, were not supervised by the Bureau staff.

This project was organized and directly supervised by May Lazar, Assistant Director in charge of Instructional Research. Mary A. Kennedy, representing the Junior High School Division, cooperated actively in the conduct of the project. Eugene A. Nifenecker, Elias Lieberman, Jacob Theobald, and Jesse Fox served in an advisory capacity. Adrian Blumenfeld assisted appreciably in expediting the ordering of the special supplies for the experimental schools. J. Wayne Wrightstone, now Director of the Bureau of Educational Research, and May Lazar, Assistant Director, were responsible for the planning and production of the final report and guide to teachers and supervisors.

The Bureau staff members who participated in the field work as well as in consultation service at the Reading Guidance Center were:

Psychologists

Frances Guanella–October 1944–June 1947
Margaretta W. Fite–September 1947–to date
Margaret Williamson–November 1949–June 1950

Research Teachers

Julia A. Martin–October 1944–to date
Ann McGinn–October 1944–to date
Margaret McKearney--October 1944–June 1948
Sue Moskowitz–September 1948–to date
Louise Schwietert–September 1948–June 1950

Juliet Saunders (until June 1946) and Marcella K. Draper, research teachers, assisted in the organization and conduct of the Exhibit and in the preparation of instructional materials for the pupils and source material for the teachers. Henrietta Bereck, teacher clerk, served as secretary of the project. Miriam Aronow, research assistant, assisted with the preparation of the research and final reports.

Acknowledgment is herewith given to all the principals (past and present) and teachers of the schools mentioned in this Preface who participated in the project. Appreciation is hereby expressed to the teachers who served as chairmen or coordinators between the school and the Bureau.

All the staff members of the Reading Guidance Center contributed to the preparation of this Guide. Part One was prepared mainly by Miriam Aronow and Margaretta Fite. Joseph Justman, research assistant, Division of Tests and Measurements, assisted with the editorial work in Part One. Part Two was prepared by Ann McGinn and Sue Moskowitz. Julia Martin prepared the bibliographies. Henrietta Bereck and Dolores Tober typed the preliminary and final manuscripts. Sarah Rosenberg gave valuable assistance in the preparation of the manuscript for publication. May Lazar prepared this Introduction and the Introduction to Part Two. She also served as adviser, coordinator, and editor of the Guide.

Part One

The Special Reading Program in the Junior High School

An overview of the problem

The retarded reader-his problems and their origins

Essential provisions for a special reading program

How to organize the special reading program

How the special reading program functions

Appraisal of the program

General summary and recommendations

Supplement to Part One

I. An Overview of the Problem

Although this Guide is concerned with the problem of retarded readers, the general status of the pupil population in the junior high schools should be reviewed. When so much emphasis is given to the study of poor readers, it is possible that the size of the problem may become distorted and thus give rise to undue criticisms of the schools and the teachers.

As indicated by city-wide reading tests, many pupils in the junior high schools show satisfactory results; others achieve so far beyond the junior high school grades that as far as reading is concerned they might easily function in the senior high school or even, in some cases, on a college level. In fact, in the city-wide survey of February 1951, about one third of the eighth grade pupils tested showed achievement equal to or above the average normally expected for ninth grade pupils. In spite of the generally satisfactory status of reading in the junior high schools, the retarded reader has become a problem in many schools and has been the cause of much concern to the teachers and supervisors.

In May 1950, the Junior High School Division, in cooperation with the Bureau, circulated among the principals of the 88 junior high schools in New York City a questionnaire[1] on practices concerned with the retarded reader. One of the questions was: "To what extent is the 'retarded reader' a problem in your school?" In responding to this question, 60 per cent of the principals indicated that in their schools the problem of the retarded reader was severe; 39 per cent said that it was mild. Only one principal in the city reported that the retarded reader presented practically no problem in his school.

In answer to other items on the questionnaire, the principals expressed the opinion that the problem of the retarded reader is greater today than it was ten years ago. They attributed this situation to a combination of factors, the most frequent of which were: school promotional policies; increase in number of children with foreign-language background; shift in socio-economic level of the population within the school; appeal of television, radio, movies, comics. Their responses indicated that they felt that the situation in the junior high school today was urgent and that immediate action was needed.

This chapter will discuss reading achievement of pupils in the New York City junior high schools in the light of their changing population. Although the results of standardized tests are analyzed, the focus is not upon the statistical findings themselves but upon the problems of the junior high schools as they appear to the administrator and teacher as well as to the research worker. The emphasis is upon the factors which have contributed to the observed changes in reading achievement in the junior high schools and to the schools' increasing concern with the problem of the retarded reader. Other chapters give suggestions for dealing with this problem.

1. Definition of Terms

Poor readers and retarded readers are not identical

At the outset of this discussion it is necessary to define terms. This is because "retarded readers" are still sometimes thought of as identical with "poor readers" and the terms are used interchangeably. However, a clear differentiation of meaning between these terms is coming into general acceptance. "Poor readers" are described with reference to standards external to the children themselves—that is, these children's reading is "poor" by comparison with that of other children of a certain class, grade, or age group. Their reading may also be poor in comparison with test norms derived from large, representative groups. "Retarded readers," on the other hand, are children who fail to meet standards based on their own potentialities. A "retarded reader" is defined here as a child whose reading ability is below average for his age and who has the capacity for better performance. This definition will be seen to exclude the poor reader of limited intelligence whose reading growth has paralleled his mental growth. This type of child is learning to read as well as can be expected, whereas the retarded reader is always a child who is capable of considerable improvement in reading growth.

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[1] For fuller data on the results of the questionnaire study, see Supplement to Part One, pp. 51-52.

Sometimes fairly good readers may also be retarded readers

The child of superior intellectual capacity may be reading only as well as the average child of his age. The bright child with average reading skills is really a retarded reader by standards based on his own high intellectual capacity. This child, who is easily overlooked by the school, also needs help in order to improve his reading. However, he is usually not included in special reading groups outside the classroom because the needs of the less efficient readers are felt to be more urgent. Efforts should be made to recognize this type of retarded reader and to give him special help in the classroom if no out-of-class program can be provided.

The definition of "retarded reader" is somewhat theoretical

For purposes of this discussion, throughout this Guide, it will be assumed now that the term "retarded reader" refers to the pupil whose reading ability not only fails to equal that of the average child of his age but is also significantly below his own potentialities. He is a child whose reading is inefficient to the extent of being a handicap to his progress in school; but he is considered to be capable of increasing his rate of learning. This definition assumes that a score on an appropriate standardized test of reading comprehension represents pupil reading performance. There are certain limitations in this assumption. A test measures those reading skills which the child demonstrates under test conditions; it does not indicate the level at which the child reads more comfortably. It does not measure how much reading he does, the degree to which reading is helping him to solve his school problems, nor the extent to which reading is contributing to his personal and social development. Similarly, capacity includes factors other than intelligence, such as vision, perception, social maturity, and emotional stability; the measurement of such factors is not a simple matter.

The poor reader presents a special problem

Whether the children the principals had in mind in responding to the questionnaire were retarded readers as defined and delimited here cannot be readily ascertained; that they were poor readers from the school's point of view is certain. Many poor readers, however, are doing as well as they can. At times, the school has difficulty in differentiating between its poor readers who are working up to capacity and those who are not; sometimes, even with individual examination, the line is not clear. Sometimes, too, the school does not classify as retarded, children who have the capacity to read better, since their performance seems satisfactory in the group.

It can be said with certainty, however, that many junior high school pupils who are referred to as "retarded readers" are actually retarded on the basis of individual capacity. Moreover, regardless of whether the school's relatively low-level readers are or are not retarded, the school does have difficulty in meeting their needs. The problem of the retarded reader in the junior high school must, therefore, be seen in the light of problems associated with this larger group—children whose reading seems poor in comparison with the grade or school or class they are in, or in comparison with standards implicit in school practice. Contributing to the larger problem are two factors: the age of the children in the junior high school and the range of reading ability among them.

2. Characteristics of the Junior High School Population

The age of the pupils in the junior high schools has changed markedly

At the present time, children younger than ever before are to be found in the junior high school grades. Because they are younger, they are less able readers. When the age of junior high school pupils is taken into account, however, their reading ability reaches a satisfactory level. The most recent test results substantiate this generalization.

Table I presents the city-wide test results obtained for eighth grade pupils on the Stanford Reading Test, Form F, (Test 1, Paragraph Comprehension), Advanced and Intermediate Levels, February 7, 1951. In order to give a comprehensive picture, the results of a parallel survey in the eighth grade of the 8th year schools have also been included.[2]

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[2] The survey in the 8th year schools, employing only the advanced level of the Stanford test, took place approximately one month earlier; adjustment was made for this difference in time. Considerable statistical latitude was taken in combining the results for the two types of schools and for the two levels of the test. The combined results are nevertheless reliable enough to show general trends and should serve a useful purpose. Medians rather than means were computed to overcome the inappropriateness of the tests at the extremes.

Table I—Distribution of Eighth Grade Pupils by Reading Grade
Stanford Reading Test, Intermediate and Advanced Levels, Form F, Test I, 1940 Norms
Junior High Schools and 8th Year Schools, New York City
February 7, 1951

	Junior High Schools		8th Year Elementary Schools		Combined	
Reading Grade	Number of Pupils	% of Total	Number of Pupils	% of Total	Number of Pupils	% of Total
12.0 –	2,298	7.8	1,520	5.8	3,818	6.9
11.0 – 11.9	2,134	7.3	2,143	8.3	4,277	7.8
10.0 – 10.9	2,507	8.5	2,724	10.6	5,231	9.5
9.0 – 9.9	2,727	9.3	3,191	12.4	5,918	10.7
8.0 – 8.9	3,654	12.5	3,987	15.5	7,641	13.9
7.0 – 7.9	4,358	14.8	4,304	16.7	8,662	15.7
6.0 – 6.9	3,989	13.6	3,162	12.3	7,151	13.0
5.0 – 5.9	4,381	14.9	3,300	12.8	7,681	13.9
4.9 and below	3,300	11.2	1,461	5.7	4,761	8.6
Total	29,348	99.9%	25,792	100.1%	55,140	100.0%
% of Combined Total	53.2%		46.8%		100.0%	
Median	7.6		8.1		7.9	
Q1	5.9		6.5		6.1	
Q3	9.8		9.9		9.9	
Q3 – Q1	3.9		3.4		3.8	

Intelligence – Pintner General Ability Tests, Verbal Series, Intermediate Test, Form A

	Junior High Schools	8th Year Elementary Schools	Combined
Mean CA	13 yrs. 6 mos.	13 yrs. 3 mos.	13 yrs. 4 mos.
Mean MA	13 yrs. 5 mos.	13 yrs. 7 mos.	13 yrs. 6 mos.
Mean IQ	99	103	101

The average score for pupils in the junior high schools is slightly lower than that for pupils in the 8th year schools, and the range for the middle 50 per cent of pupils in the junior high schools is broader than that in the 8th year schools. Although approximately half of New York City school children attend 6th year schools and go on to junior high schools and half attend 8th year schools,[3] the junior high schools enroll a disproportionate number of the poorer readers in the city.

To some degree, this finding may be attributed to the size of the junior high school. The independent junior high school building for only three school grades is so large that it is appropriate mainly for neighborhoods where families live fairly close together, whether in the crowded underprivileged sections or in the more comfortable apartment house centers of the city. In the more sparsely settled (and generally more financially secure) neighborhoods, 8th year schools predominate. This imbalance in background for pupil success in reading is reflected in the test results.

The median grade score for all eighth grade pupils in the city, junior high and 8th year schools combined, was 7.9. It might seem that these children were not "up to grade" because their grade placement in school at the time of testing was 8.5. The children in grade 8.5 in 1951 could not be expected to achieve the same score as children in grade 8.5 in 1940, the year the Stanford Reading Test was standardized, since the average age of children in grade 8.5 in 1940 was 13 years, 9 months,[4] whereas the average age of the children in grade 8.5 in 1951 was 13 years, 4 months.

The eighth grade children of 1951 thus were on the average five months younger than those of 1940. Furthermore, the composition of the classes differed considerably. The 1951 group contained some very poor readers who in 1940 would have been below the eighth grade due to previous non-promotion. The 1951 group also contained a large number of bilingual children which had no counterpart in the 1940 population. In general, thirteen-year-olds in 1951 were reading up to grade for their age—and at least as well as, if not better than, thirteen-year-olds in 1940. The 1951 group, however, was in a higher school grade than was the 1940 group.

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[3] In 1950, 56 per cent of all seventh grade pupils were in attendance in junior high schools; 44 per cent in 8th year schools.

[4] This is the age equivalent which appears in the published table of norms.

There is a wide range of ability in the junior high school

The other factor which relates to the problem of the poor reader is the great difference in reading ability among junior high school pupils. The range is broader at the present time than it has ever been. Inspection of Table I reveals that the range of reading ability among eighth grade pupils in the junior high school extends from below fifth grade ability to beyond the twelfth grade.

Even the middle 50 per cent of the scores is distributed over nearly four reading grades—roughly the sixth, seventh, eighth, and ninth.[5] The range would have been broader and more clearly defined if more advanced tests had been used with the better readers and simpler tests with the poorer readers. For administrative reasons, however, it was impossible to arrange to administer more than two levels of the test throughout the city. In general, children in the eighth grade of the junior high school—and in the seventh and ninth grades as well—may be found at every stage of reading growth.

Some children have only a very limited sight vocabulary. Some children are just acquiring methods of word attack and simple techniques of sentence and paragraph comprehension. Some are integrating their basic elementary skills and are developing speed and power. Some are increasing the depth of their ability to interpret and to organize and evaluate printed matter. Some are refining their reading skills and adapting them to a broad variety of purposes and materials. And some are capable, if their interests warrant, of comprehending and adequately handling and evaluating materials of a difficult, technical nature. It is obvious that the junior high school faces major problems in adjusting to its younger population in the grades and in differentiating its program to meet the needs of children whose reading skills vary so widely. The school will experience great difficulty in providing an adequate reading program for its poorest readers, younger or older, while it arranges appropriate and varied programs for the others.

3. The Changing Age Picture

Promotion policies have changed radically

These problems are not new for the junior high school—nor for the elementary school. A younger population with a broader range of abilities has been developing in the first eight grades for the past fifty years—ever since the 1900's when serious attention was first given to the "overage" problem which had been plaguing the schools for decades.

Even in 1916, the year the junior high school was established, half (47.6 per cent) of the pupils in the 7A grade were "overage" for the grade; that is, they were more than 13½ years old. Moreover, the pupils in the 7A grade were a select population. Half (54.5 per cent) of children of "normal age" for the 7A, that is, between the ages of 12½ and 13½, were in grades below the seventh, some of them even in the first.[6] Many older children had left school before reaching the seventh grade and were already working.

Non-promotion forced many children out of school, not only without the education they needed, but with the stamp of school failure; others who remained were denied a program appropriate for their social maturity. Discipline problems were created by "leaving back" children because of lack of native ability, thus placing older children in the same class with children of normal age. (In 1916, there were six-year-olds and sixteen-year-olds in the second grade.) Repetition of reading instruction under the same conditions that had not been successful the first time rarely brought success the second, or even the third or fourth time. Repetition in the other areas in which the child was competent was wasteful. Furthermore, the policy of non-promotion did not accomplish its main purpose —grouping children of similar academic level in the same grade. Although one level of instruction and materials was provided in a grade, children differed in ability, and there was great overlapping from grade to grade, as even early standardized tests showed.[7] Homogeneity with respect to all subjects of instruction was, of course, impossible of achievement.

Fundamentally, the school was beginning to realize that non-promotion could not be relied upon to provide children of below average capacity or achievement with the school program they required. Instead, the curriculum had to be modified and standards within each grade had to be differentiated. This task of "fitting the school to the child" which was undertaken many years ago has not yet been completed. In view of what is now known about children, it seems to have only begun.

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[5] No one reading grade stands out sufficiently so that it can be described as the typical or representative reading grade for eighth grade pupils. It should not be assumed that each reading test grade represents a discrete reading stage that can be identified in the classroom. Low scores for junior high school pupils are bunched at the lower end of the distribution. This occurs because the minimum grade score on the advanced level of the Stanford Reading Test is 4.4, and on the intermediate level, 3.2. These minimum scores may be obtained merely by not answering any item correctly. When children scoring at fourth and fifth grade levels on the city-wide test were retested with a more appropriate instrument, many were found to be third grade readers and some, virtual "nonreaders."

[6] Eighteenth Annual Report of the New York City Superintendent of Schools for the Year Ending July 31, 1916, p. 191.

[7] NIFENECKER, EUGENE A. *Pupils' Progress Through the Grades.* Bureau of Reference, Research and Statistics. Board of Education of the City of New York, Publication No. 19, 1922, pp. 94-98.

The rate of promotion rose slowly through the years. The situation existing in the seventh grade in 1916 was mainly the cumulative result of an average promotion rate in the elementary schools that had hovered around 88 per cent in the previous years; each term one out of eight children had been held back; often the same child was "retarded" more than once. By 1924, the average promotion rate in the first eight grades of the elementary school (junior high school excluded) stood at 90 per cent; by 1934, it was 95 per cent; it reached 99 per cent in 1948.

Meanwhile, more and more children whose reading skills were below average for their age and who had been retained in the lower grades where they were "overage" were gradually moved upward. Stricter enforcement and further extension of the compulsory age laws kept more below-average readers who were 14, 15, 16, and 17 years old in school; these too were moved upward.

The junior high school now faces serious problems

While the "overage" problem was gradually being overcome in New York City, the schools were confronted with numerous problems in providing for a growing "normal age" population in each grade with its quota of poor readers. It was not easy for a school system as large as, and with financial difficulties as great as, that of New York City to adjust to such marked changes in population in each grade. It was almost inevitable that in every decade established practices and approaches, available materials, and even the skills of the best and most experienced teachers and supervisors should fail to meet the challenge presented by the changing age of the children in a given grade. Compared to the rate at which the population in the grade was becoming younger, revision of curriculum and methodology was slow.

Compared to the rate at which the range was increasing, differentiation of reading instruction was also slow. The junior high school, with its complex structure, found it difficult to absorb its very poor readers. Very early in its history, some of these pupils were removed from the departmental program and placed in adjustment classes. But their numbers gradually increased until, as has been seen, the reading ability of half the pupils now measures below their school grade designation.

The discrepancy between the junior high school and its population was brought into prominence in 1947, when the pupil composition of each grade was abruptly shifted downward half a grade, and the pupils in two school terms were combined into one in order to implement the policy of annual rather than semi-annual reorganization of the schools. By these administrative measures, the age of the children in the grades was lowered further and the range of reading ability was to a small extent increased. These two measures followed the lowering, by five months, of the age of admission to the first grade during the school year 1946.

4. The Situation Today

Today's population in the junior high school is different from that of previous years

Today that large group of children who, although of age for the upper schools, were formerly kept in the lower grades or eliminated from school may be found in the junior and senior high schools. The relative proportion of the New York City school population in grades above the eighth is tenfold what it was fifty years ago.[8] Roughly speaking, the reading grade which used to represent the minimum for entrance into grades above the first today represents the average. Children entering the junior high school today are about a year and a half younger than when the junior high school was created. The great majority are of normal age, that is, between the ages of 11 years 4 months, and 12 years 3 months, and almost all children between these ages are enrolled in the seventh grade.[9]

Differences in reading ability, experience, interest, and intellectual maturity tend to become greater as children grow older. The range of reading ability among children of junior high school age is, as can be seen from the data for the eighth grade, almost as broad as that found among adults. Levels of reading ability are widely scattered; there is no great concentration around the average as might have been expected in a nearly "normal age" population. It can be expected that at least one half of the entering class of the junior high school will score at reading grade levels below the seventh (with norms adjusted for age). Nearly one out of five entering students scores at fourth grade or below.[10]

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[8] In 1901, 3.4 per cent of the total school population were high school pupils. In 1950, the percentage of pupils in the ninth and higher grades was 32 per cent.

[9] In September 1950, only 12.3 per cent of seventh grade pupils in the junior high school were 13 or more years old. Of all the twelve-year-olds in the school system (exclusive of CRMD classes, classes for the handicapped, etc.), 7.5 per cent were below the seventh grade, some of them even in the third, and there were also some children of ages 13, 14, and 15 in the sixth grade and below. The placement of new entrants, particularly of foreign-speaking children, in groups beyond the normal for their age probably contributes to this situation.

Many elementary grade readers may be found in the eighth and ninth grades. It is estimated that about 35 per cent of the approximate 100,000 pupils in the junior high schools today read at elementary grade levels. Nearly half of these elementary grade readers may be considered retarded readers—that is, nearly half of them have the capacity to read better. Of the 20,000 to 25,000 children who are fifth and sixth grade readers, many are retarded readers. Except for a small number of fourth grade readers of below-average intelligence, practically all of the 10,000 to 15,000 children scoring below grade five are also retarded. In the latter group are very many severely retarded readers, for most of them are of normal or near-normal intelligence.

Elementary grade readers are distributed unevenly throughout the various junior high schools of the city. Although the broad range found in the city as a whole is reflected in every school, the individual schools differ markedly one from another, varying with the reading environment of the neighborhood in which they are situated. In some schools, there are few children who score at elementary grade levels. In others, there are many. In some schools, the great majority of pupils are elementary grade readers. In the latter, serious problems of social maladjustment are often present. It is estimated that in these schools the proportion of retarded readers alone sometimes reaches 35 per cent or more.[11] For the city as a whole, the estimate of junior high school pupils retarded in reading is 20 per cent.

Table II presents the distribution of the mean reading grade scores for the 88 junior high schools participating in the eighth grade survey studied here. The middle 50 per cent of schools ranged in average from reading grade 6.8 to reading grade 8.6. For the highest ranking school, the average was 10.1; for the lowest, it was 5.3.

Table II—Distribution of Junior High Schools by Average Reading Grade, Eighth Grade Pupils
Stanford Reading Test, Intermediate and Advanced Levels, Form F: 1940 Norms—February 7, 1951

Average Reading Grade	Number of Schools
10.0 – 10.4	1
9.5 – 9.9	6
9.0 – 9.4	8
8.5 – 8.9	10
8.0 – 8.4	12
7.5 – 7.9	12
7.0 – 7.4	14
6.5 – 6.9	12
6.0 – 6.4	9
5.5 – 5.9	3
5.0 – 5.4	1

The solution of today's reading problem in the junior high school will entail concerted effort

In terms of curriculum, materials, methods, type of classroom organization, and general approach, the junior high school has not yet fully adjusted to its present younger population with its commensurately lower reading ability; nor has it yet fully differentiated its program to meet the needs of its poorer readers. To a large extent, reading activities in the various subject matter areas still assume reading independence at fifth grade level, below which a considerable number of children lie. In many schools, much higher levels of reading independence are expected.

Of special concern are the many children who read at elementary grade levels and whose needs are not being fully met by the school. Although constituting only a minority of the total population, this group is a large minority; it is also a powerful minority. At the minimum, these children draw a disproportionate share of the attention of teachers and supervisors from the solution of general problems affecting all the children. The solution to the reading problem in the junior high schools today must be sought both inside and outside the regular classroom.

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[10] This estimate as to children scoring below grade five is based on the results of the city-wide reading survey conducted in the seventh grade in junior high schools on September 29, 1949. Since that year, children are tested when they are in the sixth and eighth grades.

[11] Intelligence tests requiring reading ability seriously underestimate the capacity of the poor readers in these schools. The Pintner General Ability Test (Verbal Series, Intermediate) employed in junior high school surveys of intelligence yields reliable results for survey purposes, but not adequate individual scores for pupils deficient in reading. For poor readers, the correlation between the Stanford Reading Test and the Pintner intelligence test is so high as to make them both essentially tests of reading. At Junior High School 65, a nearly average school, the correlation coefficient for the complete range of 7A pupils, February 1946, 113 cases, was .90, P.E. of .01.

II. The Retarded Reader — His Problems and Their Origins

Any attempt to present a description of the retarded reader in the junior high school is bound to be unsatisfactory, since no capsule word picture can be advanced as a typical formulation of his problems and their origins. It has become increasingly clear, as research evidence has accumulated, that the retarded reader cannot be "typed" but must be looked upon as an individual. Differences among retarded readers in achievement, social and personal adjustment, interests, and attitudes are fully as extensive as they are among the general population. It is not surprising, then, to find that retardation in reading, when it does appear, stems not from a single cause but from a multiplicity of factors.

The work of the research agencies of the Board of Education, encompassing almost a quarter of a century of intensive study of retarded readers on all levels of the school system, has amply demonstrated the folly of ascribing retardation to one or two distinct causes. To be sure, some generalizations have grown out of this long period of experimentation and study. The discussion which follows is based upon the extensive body of findings concerning retardation in reading developed by the Bureau personnel and other research workers throughout the country.

1. Characteristic Problems

Lack of reading ability causes frustration

The child of normal intelligence who comes to the junior high school without the capacity to read for information or enjoyment lacks skills which are essential for his personal efficiency and happiness. There is hardly an hour during the school week when his lack of ability to get meaning from the printed page or the blackboard does not obtrude itself and so reinforce his feelings of frustration. Because reading ability is so highly valued in our culture, continued failure to read often results in social disapproval not only by parents and teachers but also by other children. Moreover, the seriously retarded reader of junior high school age is a good deal of an enigma to everyone, even to himself, because the conditions and experiences which might account for his original learning difficulties are by now largely obscured; as a result, he is frequently misunderstood. Though apparently taught as others have been, he has not learned as others do. Children with severe reading difficulty are not very numerous in comparison with good readers, but their presence looms large because nowhere do they fit smoothly into the school organization. An effort must be made to look beneath the surface manifestations of the retarded reader's inefficiency and maladjustment to see the real child and what he needs.

The retarded reader is often misunderstood to be a dull child

Not only has he a long record of poor marks, low scores on achievement tests and usually on group intelligence tests, but he is, in fact, rather generally incompetent in the school situation. He lacks skills in subjects related to reading such as penmanship, spelling, and composition; his range of information is usually very narrow. It is the exception rather than the rule when such a child achieves maximally in any school subject.

Failure often breeds low spirits, lethargy, and withdrawal behavior. In other cases where there is more active resistance to the school situation, aggressive misconduct is substituted for achievement. Such types of maladjustment are easily mistaken as symptoms of dullness. Both teachers and parents are discouraged with the retarded reader. In fact, the climate in which he lives, not only at home but also at school, usually lacks that important stimulus to learning which adult approval and confidence ordinarily provide. By the time he reaches junior high school, still unable to read well enough to give himself any satisfaction, the retarded reader no longer expects to solve his problem. Many such children have expressed the dread of being called upon for the first time to read aloud before a new class. Sometimes they have admitted remaining away from school at the beginning of a term because of this fear. They tend to make only minimal or sporadic efforts to follow class assignments, usually in books they cannot read, and hence do not make a good impression on their teachers and new pupil associates. The retarded reader may be a child of normal intelligence not functioning normally, but other children do not understand such inconsistencies. To them he is "dumb," "a dope," or, as he sometimes hears it, "something is the matter with him."

The retarded reader is really an unhappy child

When reading failure continues until the child reaches the junior high school, the unhealthy attitudes and habits associated with failure are more deeply set. As adolescence reinforces a child's wish to be at par with his age group, failure becomes harder to take. He may focus on ways of hiding his difficulty from new acquaintances, classmates as well as teachers, of trying to forget about it himself by absorption in other activities, or of resorting to daydreaming. Or, in protest with himself and his world, the teen-age child with severe reading failure takes the course of destructive action. Sometimes, he expresses marked aggression toward a younger, and in his view more favored brother or sister. Sometimes, especially if the home is repressive in its discipline, he creates a disturbance at school and shows active aggression toward his classmates and hostility to his teachers. The school, often lacking information concerning the reasons for the child's misconduct, misunderstands its meaning.

The retarded reader's misbehavior is symptomatic of a need for social acceptance

The retarded reader who is expressing himself by overt misconduct often does so because the teacher represents adults; and the adult world he feels—without really understanding why—has made things hard for him. Sometimes a child in active conflict with teachers has been punished severely at home, or he has been expected to reach goals and adhere to standards which are too high for him. Since he is unable to solve his more fundamental problems in their proper setting, he protests at school, where he becomes more of a misfit. If the teacher understands that this is symptomatic behavior and not meaningless and intolerable unruliness, then the child can be helped by the school.

It is important to try to understand the unconscious purposes underlying hostile and aggressive behavior by the child. It can readily be seen that such expression brings some immediate recognition and approval (sometimes, of course, only imagined approval) from his classmates. The disturbed retarded reader has had few legitimate experiences of success; and though this recognition is brief and comes to nothing in the end, there is some temporary inflation of the self-feelings in the attention he gets. The aggressive behavior for the moment also brings some relief from tensions.

It is more difficult to see that gross misconduct, which inevitably leads to punishment, is really a plea to adults that they do something to bring about a favorable change. This is certainly characteristic of the child who resorts to truancy; and reading failure has a very high incidence among truants. Truancy usually expresses the child's wish to withdraw from the experience of failure at school and, at the same time, it shows his active resistance and hostility toward the world of adult authority. By becoming truant, the child creates a crisis by which he involves both parents and teachers in his own emotions of fear and of anger. At a time when he is least conforming in his behavior, the truant really wants from adults a more ordered environment in which he himself can have "another chance." The latter term, a phrase which readily comes to his lips, is an expression of his need for acceptance and a sense of belonging.

It is the child and not merely the learning process which is disturbed

Poor reading is one symptom of a general disturbance in the development of the child. The experience of the Bureau and numerous reports of other research workers give ample evidence that this symptom never stands alone. Rather, there exists a constellation of difficulties which portray the child's inability to move forward toward self-realization.

The patterns of difficulty which are noted are not new in the junior high school child. Many problems have their origins in the preschool years and some in the first school experiences. Retarded readers interviewed by the school psychologist frequently reported unsuccessful experiences in the early elementary grades. The retarded reader in the junior high school, however, finds it harder to tolerate his reading failure and the other left-over problems of early childhood because they come into direct conflict with the need to grow up, which at this age he can no longer disregard. It is perhaps because of this need to solve the problems of beginning adolescence that the retarded reader in the junior high school, when he is given the individual help which he needs, often responds so completely that not only his reading but the whole child benefits.

2. Causative Factors

Adverse factors occur more frequently among retarded readers than in the general pupil population

Unfavorable conditions, defects, and disturbing circumstances differ in detail from one child to another, but a similarity in the patterns of difficulty was found among retarded readers. The factors which seem to be associated with reading failure may be grouped into three general categories:

(1) Chronic or unsolved health problems and other physical defects which interfere with the natural development of the personality.

(2) Severe home problems—particularly those which involve disturbances in the child's relationships with his parents and with his brothers and sisters.

(3) Unfortunate experiences associated with school entrance, with progress in the early grades, or specifically with instruction in reading.

Seldom does only one factor or one category of factors appear to be crucial in preventing learning. Frequently, all three types of difficulty occur together to interfere with the child's natural motivation toward learning.

Some physical difficulties have an obvious influence on learning to read

For example, impaired vision and other eye conditions which cause the child to feel discomfort in looking at the printed page or blackboard interfere directly with reading experiences. Long periods of illness or chronic conditions leading to excessive absence from school also interrupt the orderly processes of learning in the case of some children. Such interferences with school experience are overcome by those children who have normal motivation for learning to read. Others, who become retarded readers, do not seem able to recover normally from long absences from school. When a child's physical problems adversely influence the attitudes of persons close to him and thus add to his frustration, reading difficulties are a frequent result. For example, a tendency to left-handedness may be strongly discouraged by a parent or grandparent. Whether the young child submissively tries to inhibit the use of the preferred hand or openly rebels, this type of misdirected training may have undesirable consequences. The child may feel awkward and uncertain in activities which should give him pleasure. He also may feel threatened with loss of parental confidence if he has to remain a "lefty" in spite of attitudes of disapproval. There are an appreciable number of such cases of handedness confusion apparently induced by social pressure to be right-handed among children in the primary grades. These children generally have more than the usual difficulty with reversal of letters in beginning reading and writing.

Gross deviations of height, weight, and general appearance also have unfavorable emotional concomitants in the child's life when they reduce his acceptance by people important to him and subtract from his own feelings of personal worth. For example, Billy was very small and thin for a boy of twelve. Since he was the only boy in a family of seven girls, he naturally needed to feel close to his father; yet Billy was always in trouble with him. After some individual psychological work with the boy, he stated this aspect of his problem in so many words—he felt that his father was disappointed in him because he grew so slowly. Here the school nurse's cooperation was helpful. She took his problem seriously—arranged to talk with him regarding diet, weighed him regularly, and gave him good-humored encouragement. The psychologist, knowing that the factor of small stature could hardly be operating in isolation, explored other aspects of Billy's relationship with his father. For example, through the processes of psychological testing and interviewing, the matter of Billy's unsuitable vocational ambition to become a doctor was revealed; he was helped to realize that he had other abilities, revealed in his work on performance and mechanical aptitude tests, similar to those of his father who was a carpenter. This "discovery" enormously stimulated Billy, who thereafter not only worked very hard on reading (taking childish storybooks to bed to read, away from the observation of his younger sisters) but also managed to get on better terms with his father. He reported one day, "You know, my father doesn't beat me the way he used to."

Because of their evident relationship to reading, eye defects are of major concern

Severe visual difficulties on the part of the school beginner, if not corrected promptly, usually interfere with school adjustment. They are, nevertheless, not always recognized early or considered as needing immediate correction. In the Bureau project it was found that many children with reading difficulty reached junior high school with severe visual defects for which they had had no satisfactory correction. The reasons for these indications of neglect are lost with the passage of time, and lost also are the emotional concomitants.

Some visual conditions are not easily recognized or corrected. Farsightedness, for example, interferes with comfortable binocular vision at book-reading distance. Children with this type of visual difficulty are less likely to realize and accept the problem of an eye defect than those who are nearsighted. They say they have "good eyes" for the very reason that they "can see far." It becomes unpleasant but not actually impossible to see well enough to read. The symptoms of restlessness, inattention, and fatigue which often appear may be interpreted by teachers as lack of interest or unwillingness to cooperate. In this type of case, the teacher's disfavor may become entangled with the child's learning problem. If, at the same time, he happens to be absent from school and misses some important basic instruction, or takes home a "bad report card," he may start along the unhappy path of reading failure. Even in such situations, children are usually able to recover from periods of slow or inefficient learning and, by later effort in a more favorable setting, make up for these early difficulties.

A physical problem assumes importance when it becomes associated with other difficulties

Margaret was not reading well and was referred to the reading teacher and by her to the psychologist. She was a child of superior intelligence who was unduly quiet and unresponsive. When she was questioned about an uncorrected visual defect noted on the record card, she stated that her parents could not afford to buy glasses because the family was "on relief," the father was unemployed because of a disabling injury, and the mother was bedridden. This opportunity to talk privately led Margaret to give expression to her fears. Her mother's illness, she said, had come immediately after her own birth. From the way she spoke it was evident that Margaret felt that her very existence was responsible for her mother's crippling illness. The example may seem extreme, but the fact is that in almost all cases where there is severe reading difficulty there is something extreme. However, the ameliorating aspects of this case were two: (1) the child was able spontaneously to express her fear to an adult who was in a position to do something about it, and (2) the father when consulted proved to be very cooperative and able by his sympathetic handling of the child to reassure her. An eye examination was immediately arranged, glasses were obtained, and Margaret responded well to a short period of special reading instruction.

A physical defect in itself is not crucial; it is how it is involved in the child's life that matters

Margaret's father knew that the relief organization would supply money for glasses, and Margaret probably knew this also. Then, it may be asked, what was the mechanism which had been operating to keep her from getting glasses according to the usual school routine? Was it only that she could not bring herself to take home from school a request for an eye examination because she could not face the idea that something else was wrong with her? Or, was the failure to transmit the nurse's note, as well as the failure in reading itself, her way of unconsciously asserting a larger need—to create a situation which would force attention to and understanding of her problems by her world of adults? Margaret, whose mother was unable to supply all that the child, especially the girl child, needs of a mother, surely wanted happy and successful school experience even more than most little girls do. She needed to be liked and approved by teachers, and she had the intelligence to accomplish this easily. Yet it appears that a non-disabling eye defect was unconsciously utilized in order to make failure conspicuous. One learns from such cases how severe maladjustment (including reading failure) operates by revealing a child's fundamental needs. With an older child, as experience becomes more and more intricate, it may not be easy to see how some type of problem behavior, or a persistent failure to solve a problem, may be a means by which a child unconsciously directs the attention of adults to difficulties which have been long overlooked or misunderstood.

Reading problems may arise from long-standing environmental problems

Many of these have to do with disturbed family relationships or other serious problems of home life. These may have impinged upon the child in such a way as to make him doubt the love of his parents, fear that they may separate, or that he himself may be "sent away." Even when parents try to conceal their difficulties from their children, their anxiety tends to be reflected in their handling of children's problems. When adults are unable to solve difficult problems of their own, they may derive temporary relief from vigorously attacking a child's problem, perhaps because it seems remote from their own troubles. Children's initial difficulties with reading and writing provide a natural focus for parental concern because of the general importance which is attached to early school success. For this reason, some more or less accidental failure to master a beginning process of reading, by virtue of the emphasis given to it by a parent's anger or disappointment, may remain for a long time a source of confusion to the child.

To continue to interfere with a child's learning, the disturbance in family relationships must be of considerable severity. In our culture, learning to read represents one aspect of growing up. In order for a child to grow happily and successfully, it is necessary for him to have experienced good relationships with his parents or with acceptable parent substitutes. He must have felt the warmth and the satisfyingness of being loved. Denial of this basic need is always damaging to a child. Whether the parent's handling of the emotionally rejected child masks anger or reflects anxiety, or whether parents are frankly punitive, the effect on the child's growth is inevitable. On the other hand, neither overprotection nor indulgence is a substitute for affection and confidence; for by this kind of attention the child is weakened at the very time when he needs to feel his own strength. For example, the child whose parents try to tutor him at home in reading is not benefited by such teaching if he knows that his parents are disappointed in him. The feelings of anger or discouragement which exist in these situations are the direct antithesis of the feelings which stimulate and encourage a child in a good learning situation.

This does not mean that all teaching by parents is bad. Much of it, in fact, is the normal, happy experience of sharing learnings which the child expects. When parents feel doubt of the child's capacity to learn, however, their teaching reflects their negative emotional attitude and is destructive of the mutually confident parent-child relationship which is so essential for a child's normal development. This discussion would not be complete without reference to the many junior high school children with reading difficulty who were known to have suffered extended tutoring under humiliating circumstances. For example, Raymond's father, who prided himself on his intelligence and his knowledge of world affairs but was unemployed because of a nervous disorder, insisted on holding school at home every afternoon. Raymond, aged thirteen, was instructed in the presence of a ten-year-old sister who, being a very apt pupil, was given the task of helping Raymond. The boy bitterly resented this treatment, but he did not dare to express his objection to his father. He was very anxious to have his mother come to the school, however, and when she came she described a very disturbed and embittered man of whom she also was fearful. She agreed to extricate Raymond from the home tutoring on the school's advice that different methods tended to confuse the child. This accomplishment on her part had a good effect on Raymond's cooperation and achievement at school.

José, whose reading failure was extreme, was also so generally disturbed that he had few friends. He said he had had only one real friend in his life and that this boy had burned to death, a fact which his father later confirmed. The last memory he had of his friend was when he ran out of José's house because José was about to be whipped by his father. José was conscious of being unable to live up to the high expectations of his father, who, though very busy with his own work, attempted daily tutoring, thus keeping the boy from outdoor play after school. In telling of this José, who was not ordinarily so articulate, said, "Sometimes I think if I could play good and wrestle and stretch, if I could play for just an hour or for two hours, I could come home and take a bath and feel refreshed . . . and maybe then I could even read good."

The experiences from which these children suffer may contain traumatic elements

Sometimes the involvement of such experiences with school learning and particularly with reading would seem purely coincidental. Indeed, the original experience may have an accidental quality. The reason why the learning process continues to be disturbed is that the child also failed to receive the help which he needed in order to be able to understand or accept the experience.

James, who had been truant most of the time during the seventh grade, and who had almost no reading vocabulary, stated in a first interview with the psychologist that his father had died when he was four years old. James was alone with him at the time, he said, and in a manner suggesting vivid recall added, "He was sitting in a chair *reading* (the emphasis was his). He put down his newspaper. He took off his glasses, and he fell over dead."

Henry also recalled a very early tragedy. He was walking home from school at the age of seven. Some children ahead of him ran back and said, "Your brother committed suicide. He jumped off the roof." Henry told the examiner, "I didn't believe it, but then I saw it was him. And he was the *smartest* one in the family. He used to sit up late to read, and my mother said something got wrong with his brain from so much studying." A social agency report of this family described the father as a very inadequate person. He could neither support nor otherwise assume responsibility for the care of his family.

Maria, a girl of twelve, doubted that her mother loved her, for though it had been four years since her sister died, her mother still grieved over the loss of this favorite child. Moreover, the sister, who had been frail and had always had a great deal of care from the mother, became ill following an episode in which Maria had participated. Both girls without permission had played under a street shower from a fire hose, and Maria—though two years younger than the sister—remembered how severely she had been scolded for not keeping the sister out of the water. It was clear that Maria's anxiety included feelings of guilt connected with the death of this sister. But Maria had other troubles too, including a very bright brother who liked to tease her about being too fat and getting poor report cards. She also had an ambitious father, who worried over her and persistently but unsuccessfully tried to help her with reading. Maria responded very well to the instruction and psychological guidance offered by the reading program, but because of the severity of her personal problems she was also referred to a mental hygiene clinic.

In the three cases described above, the home situation was grossly lacking in normal sources of support and reassurance to the children at a time of a frightening experience. Hence the accidental deaths in these families were really traumatic and lasting in their effects. They, in fact, made it impossible for the children to respond normally to instruction until they had received individual help.

The experience of Jerry is typical of a number of junior high school children whose family difficulties were a continuing source of conflict. Jerry, when he was twelve years old and in the seventh grade, was referred to the psychologist by the reading teacher. She had found him immature and uncooperative. In fact, his hostility to her and to the other children was so undisguised that she questioned the value of retaining him in the reading group. In talking with the psychologist, Jerry said that he first learned that his stepfather was not his real father when he was enrolled in the first grade. Questioning regarding his name and his father's name made him suddenly aware of this circumstance. At the time of this interview with the psychologist, Jerry spontaneously recalled many kind things his stepfather had done and gifts from him which he had cherished as a small child. The boy was nevertheless convinced that after he started to school nothing was ever the same for him in his family. Conflict with his mother as well as with his stepfather was very bitter. His emotional insecurity was reflected also in his prolonged helplessness in trying to work out relationships with his younger half brother and sister. This boy, who felt that his parents had rejected him by keeping him in ignorance of a very important matter—who his father was—expressed such hostility toward his junior high school teachers that he was constantly in trouble. However, his own personal needs required him at last to solve his reading problem because curiosity got the better of him (he *wanted* to read for information), but he continued to plague his teachers by an excess of minor annoyances and by continuing to write with an illegible scrawl which he himself could hardly decipher. In this case, since the relationship with his parents had never proceeded normally (Jerry had, for example, no satisfactory answer to his questions as to what had happened to his own father), he was not able to react normally to other adults in authority, especially teachers. The only adults who could communicate with him were persons who were in a position to give him much more leeway to express hostility than was possible in the school situation. In other words, this child needed help from a child guidance clinic which could also give service to his parents.

Causation is always a dynamic and never a static process

There is nothing mysterious or hidden in the makeup of the retarded reader. Even in the case of organic brain damage, it is not impossible for the child to learn to read, unless he shows severe mental retardation. While it is true that such children may experience greater difficulty in perceiving or retaining visual impressions or in integrating learning experiences, brain defects *per se* merely make it harder for the child to attend to instruction in reading and, in large measure, function in the same way as a marked hearing loss. When these children live in an otherwise happy situation and are given consistent emotional support, they do, in fact, show satisfactory school achievement.

The identification of even a severe physical handicap or the uncovering of a traumatic experience should not be looked upon as the culmination of the search for causes. It is equally important to trace how an original handicap to adequate learning becomes chronic and resists the well-meaning efforts of both teachers and parents. The real reason why the child does not use such abilities as he has in following the accepted patterns of social behavior by learning to read is ordinarily to be found within the personal-social dynamics of his life.

There are more boys than girls among children with reading problems

The interpretation accepted here takes account of three sets of circumstances which seem to affect the sexes somewhat differently. They concern the same categories of causative factors listed previously, namely chronic or unsolved health problems, disturbances in family relationships, and unhappy early associations with reading.

There is evidence from various sources to suggest that boys at the time of school entrance have been somewhat more subject to various physical difficulties than girls have been. The incidence of left-handedness is slightly higher among boys than girls; this is true also of defective color vision. Earlier studies by this Bureau showed a larger number of boys than of girls in the first and second grades who had symptoms of visual difficulty and who were described by teachers to be restless and inattentive. Kindergarten and first grade teachers reported that mothers of school entrants expressed greater concern regarding the health of boys than of girls. This circumstance may be related to the fact that the infant mortality rate for boys is higher than for girls. Girls have also been found to have a somewhat more advanced skeletal development than boys at the age of school entrance, and this fact may account for their being described as more "mature" than boys. From a consideration of these various findings relating to physical development, it appears that among boys at school entrance there is a somewhat greater preponderance of handicaps—a fact which may adversely affect their responses to beginning school instruction.

In the area of emotional experience, boys and girls differ somewhat in their responses to the situations and personalities which the school provides. Children when they first enter school are at an age when they are beginning to use other adults in addition to their parents for gaining a self-image, the boy of the adult man, the girl of the woman. Most children come from families and communities where they have had relatively happy associations with a number of adults, particularly with their parents. They are well started in this process of building a concept of their own role in life in terms of goal ideals unconsciously learned from the parent of the same sex and from other persons. But children who in their earliest years have suffered unfortunate handicaps (physical or emotional) enter the first grade with a greater need for help from the teacher than those whose prior experiences have been normal. Both boys and girls with handicaps which might predispose them to reading failure benefit by association with teachers who are interested in them. The girl with problems, however, has an advantage over the boy, since the woman teacher has the additional function of filling out for her the feminine image which the girl constantly creates and recreates during the process of growing up. For the girl, the competent and attractive woman teacher is a real source of strength. For the boy the woman teacher cannot be a source of this kind of strength, though she may be able to help him in many other ways. Because there are not many men in the schools in the early grades, the insecure or otherwise handicapped six-year-old boy does not have the same kind of opportunity which the girl has for obtaining help. If he lacks a father or has difficulty in identifying with him because of the father's inadequacy, the disturbed boy may on this account, and to a degree more frequently than the girl, remain unhappy and fail to learn in accordance with his capacities.

In all cases which have been cited in this chapter, it will have been noted that boys had difficulty in relating to their fathers due to the severity, inadequacy, or total absence of the father—and that the girl's emotional problems mainly concerned the mother. These cases were not selected primarily because of the presence of this factor; they are typical of the cases studied.

The following chapters will attempt to show how children of the types which have been described can be helped by the establishment of special reading programs in the junior high schools.

III. Essential Provisions for a Special Reading Program

The Introduction to this Guide indicated the nature of the work carried on by the Bureau of Educational Research in connection with the establishment of programs for retarded readers in selected junior high schools. From the beginning, the Bureau staff members assigned to the schools for this purpose used an exploratory approach. The purpose of the project was to develop, in each school, a practical program based on the needs and conditions in the school. Although a few schools were in favored localities, most of the work was done in underprivileged areas. A few schools were new and well equipped; the others had inadequate space and outmoded furnishings.

At first, and for an extended time, the Bureau staff members themselves carried on the planning as well as the supervision of the detailed work with retarded readers in the project schools. The teachers assigned to the reading program in the schools were given explicit instructions, supervised regularly, and finally were given full responsibility for the work with the selected pupils. The Bureau staff members continued to observe and evaluate practices. Interchange of experiences and ideas among the staff members resulted in a crystallization of thinking as to what is essential for developing a special program. The following brief statements summarize these requirements, and the later discussion goes into more detail regarding each one:

(1) A *supervisor* who can devote time to the program, understands the problem of the retarded reader, knows the special methods of instruction required, and is acquainted with the materials which are needed and can be obtained.

(2) *At least one teacher* who is genuinely concerned about the needs of these children, is willing to learn the techniques of teaching the retarded reader, and is assigned on a full-time basis to this work. This teacher may then act in the capacity of chairman cooperating with other teachers assigned to the program.

(3) A *reading room* which is pleasant in atmosphere and equipped with many kinds of reading materials at various levels of interest and difficulty.

(4) *Health and child guidance services* which can supplement the work of the reading teacher in studying and ameliorating physical problems, emotional difficulties, and other factors which complicate the learning problems of the retarded reader.

(5) *Administrative support* based on understanding of the value of the program measured not only in terms of numbers of children reached and gains in reading scores but also by the personality growth of the pupils.

1. The Supervisor

A supervisor experienced in the area of the language arts is needed

It is important for the administrator of a school to have a broad understanding of all instructional programs carried on or needed in his school. The supervisor directly in charge of the reading program, however, should be someone who is trained and experienced in the area of language arts at the elementary as well as the junior high school level and who also understands the techniques of group testing and of guidance. Such a supervisor in a junior high school, if given time for the work, can assume responsibility for surveying the reading needs of the school and for planning a program of instruction that will increase reading efficiency throughout the school. Though his major efforts would be concerned with helping the regular class teachers provide adequately for children with widely varying reading achievement, he could also be responsible for the out-of-class program for retarded readers.

In those schools in the project where a competent supervisor was able to give close attention to the requirements of the special program for retarded readers and also to the general improvement of instruction in the language arts, the evidences of value in this supervision were unmistakable. When this supervisor also was qualified in the guidance aspects of work with atypical children (among whom many retarded readers must be classified), he was helpful to the reading teacher when it was necessary to refer individual children for special guidance services. The reading teachers generally cannot obtain the necessary special services. Teachers need understanding and support from a supervisor in all the major areas of work with retarded readers, such as the selection of children, suitable grouping and scheduling, ordering of supplies, arranging for special adjustments of program and curriculum for maladjusted children, referral of cases needing services from health or child guidance agencies, communication with parents, and evaluation of the reading progress and personal development of children by including other teachers' observations and opinions. Successful integration of the work of any teacher dealing with exceptional children in a large New York City school depends not only upon the skills of that teacher, but upon the help of a supervisor who also understands and appreciates the need for these skills.

2. The Reading Teacher

A full-time special teacher of reading is needed

In most of the schools included in the project, there were no extra positions designated for special reading instruction. Teachers with interest and aptitude had to be found among those whom the school principal could release from other assignments; and, therefore, the basis of selection varied from school to school.

As has been suggested, much depended upon whether or not the principal was able to assign the teacher most interested and best qualified for this work. Sometimes such a person was already overburdened with other special assignments. When substitute teachers were used, their brief stay in the school before transfer or appointment to another school and another type of work meant a definite loss to the reading program. One practice also followed in a number of schools was the use of several teachers for part-time work. Some of these teachers were responsible for only one or two groups of children receiving special reading instruction. While this plan had the advantage of giving a larger number of teachers a desirable kind of experience, there were serious disadvantages. Assigning several teachers for only a few periods was not satisfactory, especially in such matters as pupil programming and insufficient use of the reading room and materials. Another disadvantage was that teachers giving only a small proportion of their time to the reading program were unable to learn much about this work. Because it is desirable that the reading teacher be able to concentrate his interests, special knowledge, and skills on the difficult problems of these children, assignments of reading teachers should be made on a full-time basis.

The teacher who succeeds in the instruction of children so long used to failure must have real aptitude for the task. Basic to everything else is the capacity for sympathetic understanding of a child's problems. This must be genuine feeling and not sentimentality. Equally important is the capacity to build a good relationship with a child, the dynamics of which convey unmistakably to the young adolescent a new feeling that his failures are understood and that he is accepted and liked in spite of these failures. Also, from the beginning of the teacher's work with him, the child must obtain clear evidence that he is considered capable of learning, for the successful reading teacher really does believe the child is going to learn. No matter how severe his reading difficulty or how hampered he may be by all the negative feelings related to his past failures, the retarded reader must recognize that the reading teacher is accustomed to his problem and knows how to help him. This confidence in the teacher's power to help is absolutely essential to the child. Hence it is important that the teacher possess the professional competence which will in fact insure the child's progress. Of course, the teacher cannot guarantee any given rate of learning, but if he has the required technical skills, together with confidence in these skills and in his own ability to motivate the child, he can be sure that learning of some significance will take place.

The teacher must be in full command of a variety of teaching methods so that he can select those which are most effective for each individual child and suitable for use in the group. In the special reading room, where there is a somewhat freer atmosphere than can be allowed in the regular classroom, there is continuous planning on the part of the teacher for children as individuals and as members of these special groups. These maladjusted children tax the teacher's creative skills as he attempts to further interests and activities which the children can use to help one another in ways that lead to social growth.

For work with retarded readers, it is important that the teacher have training and experience in elementary reading methods, in diagnostic testing, and in the psychology of the adolescent child with educational disabilities. Important as this professional background is, a major qualification concerns the teacher's personal aptitude to form good relationships with children for whom school has heretofore represented frustration and defeat.

3. The Reading Room

The reading room is an important factor in the program

No matter how competent the supervisor and the teacher are, the success of the special reading program depends also upon provision of a reading room which is suitable in its location, size, and equipment and is also capable of being attractively arranged.

As to location, the reading room benefits from being situated "on the main line" of the routes traveled by seventh grade children. Since the individual pupils in a group may come from different parts of the school building, it makes for convenience if the room has a fairly central location. Reading rooms should not be in poorly lighted, cold, or otherwise abandoned parts of a school building; nor are they satisfactory if they differ in size from the ordinary classroom. They should be large enough to accommodate easily the equipment listed below. Though it is true that in one old and crowded building, where no other space was to be found, an unused gymnasium was actually converted and successfully used as a reading room, this was out of necessity rather than choice. A less satisfactory solution to a space problem was the provision in another school of a room the size of an office rather than a classroom.

Recommended Minimum Standard List of Furniture for Reading Room

(Measurements given are approximate)

4 tables, either rectangular (60" long × 36" wide × 28" high) or round (48" diameter × 28" high).

16 chairs suitable for junior high school pupils.

3 bulletin boards, approximately 38" × 25" or replace half blackboard space with cork.

2 open book cases, each five book spaces high (60" high × 36" wide × 8" deep).

1 three drawer letter file, if possible.

(It is assumed that closets and a teacher's desk will be provided.)

The reading room should be a well-lighted room equipped to further instruction by individual as well as group approaches. A well-appointed reading room must provide enough space so that each of three or four tables can serve as a center where children at times work alone and at other times in small groups. Such a situation permits the teacher not only to give detailed individual instruction without disturbing others but also at times to talk confidentially with the child in a natural way. Small offices are good only for strictly individual work with one child.

Equipment for the reading room is relatively inexpensive and easy to acquire. The room should have a generous supply of closet space. The major items needed are tables and movable chairs rather than the fixed seats and desks. These give the desired informality to the reading room and enable the teacher to make arrangements which at times allow for space and separateness and at other times provide closeness and the good feeling of working together without conflict. A file cabinet is useful to the teacher because he accumulates personal data regarding individual children in folders or envelopes which are best kept in an alphabetical file. This cabinet also enables the teacher to store for ready reference the many illustrative materials and teaching aids for this work which are likely to be on single sheets or cards, or in small leaflets which can be filed topically.

Because conditions vary so from school to school, no definite list of books and other teaching supplies can be recommended generally. The special requirements of each school situation should influence what is ordered. If only limited money is available, simple well-chosen aids are far more desirable than expensive instruments which are not needed in the majority of cases. Many teachers find a typewriter an invaluable aid in the reading room, both for their own and the pupils' use in various ways. Some means for duplicating instructional materials should be provided. Film strips and other visual aids should be available to the reading teacher, and the reading room should have an electrical outlet conveniently located.

The reading room attempts by means of its furnishings as well as its activities to embody some of the best features of a club, a workshop, and a library. The aim is to develop a room which stimulates the child who has disliked reading and resisted learning to want to read and to believe that he can gain something by coming to this special room. There are no rules to follow in creating this atmosphere. Teachers use varying methods to make a room attractive and one which seems to welcome the newcomer and give to the initiated a good feeling of belonging. Such things as bright table mats, a flowering plant, colorful pictures or posters attractively mounted, and bulletin board displays will enliven a room and contribute to this feeling. It is even worth while for the teacher who may not be skilled in room arrangements to ask help from another—possibly an art teacher—and to enlist the interest and aid of the children.

Books themselves can be attractively displayed—the new ones with their bright jackets—and it is important that the library corner or table has a good quota of storybooks for easy reading. A particular section of the bulletin board may highlight some aspect of current events, such as personalities in the news. Newspaper and magazine clippings, especially pictures with good captions, will stimulate discussion and extend reading activities.[1] Select some items that will give fun and pleasure. Various other centers of interest may be arranged from time to time having to do with the children's hobbies, athletic activities, vocational ambitions, or any other concern which is worth encouraging. As the teacher works with a child or a group in arranging these materials for display and for pupil use, he has an opportunity to build up feelings of personal worth in these children. By and large, retarded readers seldom have the satisfaction of this kind of favorable recognition; hence the teacher who can focus attention on something vital to a child, and can organize reading instruction around this topic, is building something of basic importance to these ordinarily nonproductive children.

Though the reading room should be fully equipped, it should not be cluttered. Crowded wall spaces and tables are likely to defeat the purpose of the display, for they tend to confuse and overwhelm the children rather than to stimulate them. The experienced teacher holds plenty of material in reserve for the right occasion and is also careful that exhibits do not outlive their usefulness. Such material should be changed frequently, especially on bulletin boards. It is important, too, that the supplies to which children have access are clearly labeled and stored regularly in the same places. There should be a definite system of book lending, involving instruction in how to keep the necessary records.

Regularity and order are important to maintain in the reading room so that there may be efficient use of time. Besides, these children retarded in reading particularly need to experience satisfaction in orderly processes and arrangements in which they have a vital part. When they come to the reading room, it should be with the good feeling that each has an assured place and that the room as well as the teacher is in readiness for all of them.

4. Health and Child Guidance Services

Health and child guidance services are essential to the program

The preceding chapter has presented evidence concerning the number of different kinds of difficulties which beset children who have reading problems. For the most part these difficulties are not new at the time the child enters the junior high school; they are conditions which have existed for a long time. Most of them are — or seem about to become — chronic. Roughly these difficulties may be classified into three categories: (1) health problems or other physical difficulties; (2) unfavorable home conditions, including disturbed relationships within the family; (3) evidences of the child's maladjustment at school extending back as far as the primary grades. In the Bureau experience, most children referred for psychological study because of their reading difficulties were found to have problems in all three of these areas. They were continuing problems which affected not some single aspect of the children's lives but the whole of it. Physical, emotional, and social problems interacted and reinforced each other so that the child's life was characterized by a general and disabling experience of frustration. At school, he continued to show his inability to move forward in the expected ways by his persisting failure to read normally.

The teacher's own studies of the many children in his reading groups are necessarily incomplete. The reading teacher needs not only diagnostic assistance, but, in many cases, services from the auxiliary health and guidance agencies which are available to the schools. Whereas reading teachers have reported that certain children in their reading groups have obtained necessary and valuable help from both school and community agencies, their complaint has been that the number of children who received these special services was pitifully small in proportion to the number needing help.

The Bureau psychologists who studied children with reading problems and observed the work carried on in the reading rooms in various schools had the opportunity to confirm the need for assistance from the special services. At various times, school nurses, health counselors, the Bureau of Child Guidance, community recreation centers, eye clinics and other hospital clinics, junior high school guidance counselors, and social workers from family and child welfare agencies were concerned with and rendered important services to children with reading difficulties. Many more such children, however, who would have benefited did not obtain these special services.

Just what proportion of children in the junior high school reading groups need these services is not exactly known, but unquestionably a large number of these children would benefit from additional medical, psychological, or social services. Moreover, every reading teacher in the course of a year's time meets a number of children who are in need of full clinical study by the Bureau of Child Guidance or some other mental hygiene clinic.

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[1] Many suggestions concerning books and other teaching aids will be gained from studying Part Two of this Guide, including the bibliographies in the Appendixes.

These special services might better be made available much earlier in the child's life than in the junior high school period. Even where records show, however, that such services were refused in the past by the children's parents, it has been found that in many cases there is a new receptiveness to services when the child enters the junior high school and especially when he has been singled out to receive the benefit of special instruction in the reading room. Children themselves have shown courage and persistence in bringing their parents to school to interview the teacher or a clinician; parents (even those generally rejecting or punitive toward the child) have agreed to take some steps to correct old problems. Children themselves at this beginning stage of growth toward maturity participate in psychological study very willingly. Perhaps because the testing usually reveals certain abilities of which they had been unaware, they feel stimulated and are often ready to bring out problems with which they clearly need continued help. Some of this is a need for counsel which is rather easily evident to the trained worker; some conflicts are deeper and anxieties are present which reveal the need for therapy based on full clinical study and careful planning. In many cases, the parents—or one parent of a family where there is discord—readily gives consent to the child's having guidance help from a worker or a clinic attached to the school. Even though the reading difficulty is only one symptom of the child's disorder, the existence of the educational problem makes the school the logical agency to study the child's needs. In the Bureau's experience, some parents with severe problems of their own, and long-established antipathies toward other agencies, finally came to cooperate with the school.

5. Administrative Support

Administrative support makes for success

The junior high school teachers, who attempt to help the retarded pupils during the already late and short time when they are in their seventh or eighth year of school, need the support which comes from strong administrative backing of the program they are carrying on. The Bureau staff learned by repeated experience that even the most competent and experienced teachers at times felt uncertain as to how to meet some especially difficult problem or new situation. They felt that they should be able to consult an authority at such times. To some extent, the Reading Guidance Center functioned as a consultation service to reading teachers in the junior high schools during the course of the project. This was, however, only a temporary service.

IV. How to Organize the Special Reading Program

1. Planning

Knowledge about the reading problem in a school is basic to planning

Junior high schools differ greatly in reading achievement; these differences are due mainly to the diverse nature of the population in the various school localities. As a first step in beginning his work in a junior high school, the reading teacher should become informed about the reading achievement of the total group of pupils in the school. From the principal, he can obtain the results of the most recent city-wide test survey which show the average reading achievement of the particular school in comparison with the city as a whole and with the local school district. In addition, the reading teacher will find it important to obtain a distribution of reading scores for one grade level and then determine the number and proportion of poor readers in relation to the size of the groups of normal and superior readers on that grade. Regardless of whether these data are available for seventh or eighth grades, the teacher will develop from this study of the test results a perspective from which to consider the problems of the retarded readers.

In evaluating these reading test results, the teacher should remember that reading retardation is not an absolute condition but must be evaluated in terms of the total picture in a given school. For example, in a school where the average reading grade score for entering seventh grade pupils in recent years has been found to approximate 6.5, it may be expected that the reading needs of children with grade scores of 6.0 and higher would usually be met by the instruction carried on in the regular classrooms. On the other hand, children scoring as low as 6.0 in a school where the average seventh grader made a score of 8.5 (as occurred in several schools) might be helped considerably by special reading instruction outside the classroom. In a school where the average seventh grader reads no better than the usual fifth grade pupil, however, the child reaching 6.0 would be among the more advanced readers in the classroom. These school differences in reading achievement inevitably affect selection and instruction of the retarded reader group. This should not imply that test results are used arbitrarily to determine selection of children for the reading program. The major objective of the out-of-class program in any school is to reach those children who are not otherwise accomplishing in reading what can normally be expected of them as individuals. The program is planned for and geared to individual pupil needs; but in every school it attains functioning effectiveness partly as a result of realistic adaptation to local conditions.

The best planning is cooperative

Any type of educational program—and especially a new program—will fail to reach maximum effectiveness if the school as a whole is uninformed about its essential aspects. No matter how clear the objectives and the means for attaining them are to the reading teacher, if the work is to go forward successfully, the supervisor and the other teachers in the school must share this understanding. Indeed, it is very desirable that the special reading program be introduced into a school only after the principal has discussed with the teachers the underlying problems which make this program necessary. Group discussion and planning regarding the reading program undoubtedly help it to function as an integral part of the school, in which all teachers have some interest and responsibility.

Methods of group planning will vary in different schools depending upon local conditions. For example, as a way of building background information prior to the establishment of a special reading program, the principal may arrange to have a staff meeting devote time to a study of reading achievement in the school, as shown by the test results of a recent survey. Charts may be prepared showing the obtained reading scores in graphic form; these will serve to focus attention and to stimulate discussion. If a special reading program is being introduced for the first time in a school, conferences will be needed in order to clarify matters such as: the criteria for the selection of retarded readers; the proposed steps for carrying out selection; ways in which information about individual children's needs can be made available to all teachers concerned.

There are possibilities for cooperative work among teachers as to the children to be selected for such instruction. All teachers should participate in referring children to the attention of the reading teacher, since in this way a sound basis for cooperative work between regular and special teacher can be established.

Not only the official teachers, but all others who have retarded readers in their regular classes, will want to know about the special programs which are arranged, their objectives, and how individual children's reading problems may affect their classroom work. Later on they will be interested in evidences of progress and adjustment in individual cases and especially of ways in which children's particular needs and interests can be supplied in their classes. It is important that this cooperative aspect of the work with retarded readers have administrative recognition and support from the beginning of a school term. In the Bureau experience, failure to provide sufficient time and means for the necessary consultations constituted a major obstacle to successful work. This is probably one of the greatest problems the schools face in connection with their in-service training of teachers and with cooperative planning.

2. Selection of Pupils for the Reading Program

Certain basic principles for selection must be considered

A special reading program for junior high school children aims to select only those retarded readers who are capable of considerable improvement in reading and who are unlikely to make such progress without this special help. Identifying these children from among the larger group of poor readers is not a simple matter. No set blueprint of procedures can be used as a guide. This discussion of selection is based on both the principles and the practical experiences which the Bureau staff members found to be important in their work in many junior high schools of this city.

In general, the policy should be to select those pupils with the greatest disparity between reading achievement and mental maturity. Priority among these children will be given to the youngest, usually the seventh graders, and to the retarded readers who show readiness to coöperate in the reading program.

Unfortunately, certain difficulties are also commonly met in the effort to reach these objectives. For example, the desirability of knowing what the difference is between a child's mental ability and his reading ability is not questioned, but accurate measurements are not easily available for seventh grade children entering the junior high schools. Since survey testing of reading achievement is usually undertaken early in the sixth grade, scores on such reading tests give only a general indication of the beginning seventh grader's reading skills. Some children will have advanced far and others only slightly, if at all, beyond the sixth grade scores. Further testing of reading is therefore essential in the selection process.

The problem of how to assess the intelligence of the retarded reader is less easily solved. Group intelligence tests which involve reading do not measure adequately the potential capacity of the retarded reader. Moreover, for children of junior high school age, non-verbal group tests of intelligence, which omit reading altogether, have not yet proved their worth as a single measure of intellectual capacity. Reading teachers, psychologists, and guidance workers concerned with estimating the potential ability of children retarded in reading have recognized this inadequacy of available tests as a major problem. Theoretically, all retarded readers should have individual psychological study as a matter of essential school routine. In the absence of the necessary personnel, other approaches to this problem have to be considered.

Attempts to solve the reading problem at the time of entrance to the junior high school are unsuccessful in some cases because it may be too late. Since the child has failed in reading over a period of years, he may have rather long-established protective mechanisms by which he resists facing this problem. Moreover, since the much more complicated organization and schedule of classes of the junior high school require difficult adaptations by the retarded reader, he may therefore feel fearful of other changes. However, since it is the child as a whole who learns or fails to learn, it is necessary from the beginning of the reading teacher's association with him to try to assess the motivational forces which so largely determine what the child learns. Hence, a good deal of time is taken by the reading teacher to begin work with each child on terms which are understood and accepted. In whatever he does with these retarded readers, the teacher's first aim is to build mutual understanding and the beginning of a good working relationship.

The procedure for selection should be carefully worked out

If the reading program is not new in a school, the teacher will have at the beginning of the school term a list of eighth graders for whom further instruction in the reading room has been planned. An occasional ninth grade pupil is also taken into the program. Since it has been found, however, that the seventh grade is the best time for beginning special reading instruction in the junior high school, the selection process is discussed here with respect to this grade. It will also be assumed in this discussion that the school staff as a whole has been given an explanation of the objectives of the reading program and of the methods of selecting the children. It is recognized, of course, that since schools differ in the severity of their reading problems as well as in the personnel and other resources which are available for their solution, methods of identifying the retarded readers will vary somewhat from school to school. Procedures which usually have been found to be effective are at first listed and then described in more detail. The school situation assumed is that there are a typical number of retarded readers—more than enough to occupy the time of a newly-assigned reading teacher. It is also expected that, before he begins the work of selecting the retarded readers, the new reading teacher will have become acquainted with the factors in the school and the community which have a bearing upon reading achievement. The usual next steps are as follows:

Compile a list of seventh grade pupils with a history of reading difficulty.

Administer suitable reading tests.

Eliminate children whose test results show good progress.

Interview each child being considered for the reading program.

Attempt to assess each child's potential abilities.

Determine upon a first list of retarded readers who fit all the criteria of selection.

Plan continued study and selection of children on a waiting list.

(1) Compile a list of seventh grade pupils with a history of reading difficulty

In order to identify the children most in need of an out-of-class program, it is desirable to compile an inclusive list of children considered to be poor readers whose names are obtained from various sources. Some of these are: the elementary record cards with their entries of marks and test scores; special records such as the "articulation" cards available in some districts and the cards prepared by remedial reading teachers in the elementary schools; referrals by teachers, social workers and parents; and, occasionally, requests by the children themselves. Accumulating the names of candidates for the reading program is usually the responsibility of the reading teacher. It is also usually the case that the retarded readers with the most serious behavior problems are referred directly by the principal or the supervisor.

a) STUDY THE ELEMENTARY RECORD CARDS. The reading teacher's next task is to systematize his inspection of records so that he will get an inclusive list of candidates as quickly as possible. This list can be reduced as more information is learned about each child. For children who have attended elementary school in New York City, the results of the sixth grade city-wide tests as well as many other items of pertinent information have been entered on the elementary record cards; it is these cards which the reading teacher examines first. Since the cards are ordinarily in the hands of the official class teachers, each of the seventh grade classes is surveyed separately.

b) CONSIDER RESULTS OF THE SIXTH GRADE READING SURVEY TESTS. The first rough screening occurs when the reading teacher eliminates all cards of children whose reading scores are relatively high. If the most recent scores for the seventh graders were obtained when the children were in the early part of the sixth grade, these test results are out of date nine or ten months later.[1] Some children will have progressed much beyond the recorded scores; others will have made little or no improvement. All that can be assumed is that, in general, children in the seventh grade will be reading at least as well as their sixth grade records show, and most of them will have gained at a rate similar to that which characterized their earlier learning. If these reading tests were given in the third month of the sixth grade (that is, when the equated grade month is 6.3), it is advisable in most junior high schools to consider for further screening all children whose reading scores were no higher than 5.0 at that time. In junior high schools where the reading achievement of the school as a whole was either much higher or much lower than the city average, this tentative minimum of 5.0 would be correspondingly raised or lowered. For each class, the reading teacher can easily obtain the names of children who scored at or below this minimum.

In addition, children who did not take these tests must be considered. In such cases, other reading test data are similarly evaluated with reference to the grade equivalent of the child at the time; or in the absence of any recent record of standardized reading tests, teachers' marks or special notations of reading difficulty may be used.

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[1] Whenever standardized reading achievement tests are given to the entire seventh grade at the beginning of the school year, these results are, of course, used as the starting point for selection of retarded readers.

c) ELIMINATE NON-ENGLISH-SPEAKING CHILDREN. Among the children sometimes referred to the reading teacher are those whose low reading scores are clearly the result of their having only very recently been required to speak and read English. For example, many Spanish-speaking children who have recently come to New York from Puerto Rico experience a general handicap in dealing with the English language—including reading. However, until oral English has advanced at least to the point where the child is comfortable in expressing himself in ordinary conversation and until he can understand a good deal of the language, there is no reason to assign him to a reading group since his difficulties are entirely different from those of the retarded readers. Because quite different approaches are used with these two groups of children, placing them together in the reading room unnecessarily complicates the instructional situation and minimizes the possibilities of pupil response. Usually such children should be eliminated from the referral list.

d) ELIMINATE CHILDREN KNOWN TO BE RETARDED IN MENTAL DEVELOPMENT. This reading program is not intended for children who have had individual psychological examinations showing that they are eligible for CRMD[2] classes. Those who have been placed in CRMD classes should also be eliminated since they already are provided with sources of individual help in these classes.

e) SYSTEMATIZE RECORDING OF INFORMATION ABOUT EACH CHILD. A procedure which proved of value was the preparation of large record sheets in which these children's names were listed by class groups. Space was provided for indicating class, name, date of birth, name of latest reading test, as well as the record of at least two intelligence tests by name, date, and IQ. Considerable space was also allowed for special notations regarding individual children available on the record cards or on attached reports. These data served to remind the teacher of circumstances other than test results which might have a bearing upon whether or not the particular child should be selected among the first groups to be given special reading instruction, or whether his case needed further investigation. Such notes as "hearing loss . . .," "entered grade 5 from Puerto Rico . . .," "good marks in grade 5, poor in grade 6 . . .," "many home and school moves . . .," "high marks in arithmetic and music . . .," "had remedial reading in grades 4 and 5 . . .," "last reading score lower than former test . . ." would help to remind the reading teacher to look beyond test scores to the child himself in order to evaluate his need for instruction. Also, in cases of children referred to the reading teacher by a supervisor or a class teacher, appropriate notations are made in order that the person concerned may be informed later about the findings and the recommended disposition of the case.

(2) Administer suitable reading tests

The next step in selection involves the administration of appropriate reading achievement tests to all the children listed. For this purpose, choose a test which begins with very simple material and which measures a wide range of ability. Since the major purpose of this testing is identification of a group rather than individual diagnosis, simplicity of administration and ease of scoring are also important factors to consider. Tests which these children have had in the recent past should not be used. The test chosen should give a measure of reading comprehension which involves paragraph reading. The material of the test should be graded from very easy to quite hard, and speed should be a less important factor than power. There are available a number of standardized reading tests which can be used successfully, though it is unlikely that a single test will be appropriate for all the referrals. It is important to study the content of a test to determine its suitability. Publishers often include grades for which the test is not suited.

a) NEW YORK TESTS OF GROWTH IN READING. Well adapted for these purposes are Tests C and D of this series.[3] Usually the majority of poor readers tested at the beginning of the seventh grade may be given Test C, which measures quite adequately the third, fourth, and beginning fifth grade reader. More advanced children can be given Test D, which is appropriate in grades five and six and will also yield reading scores below and above those grades. Severely retarded readers may be tested with Test B of the same series.

b) ADMINISTRATION OF THE TESTS. This is usually carried out by the special reading teacher. Before giving the test to a group it is well to explain briefly that many seventh graders will be tested and that the purpose is to see if their reading has improved since they were last tested. It is advisable to limit these groups to twenty or twenty-five at one testing in order that the teacher may supervise closely to see that children understand and follow directions, do not skip columns or pages or copy their neighbor's responses, and continue working until time is called. Other points of administration, scoring, and interpretation will be found in the test manuals.

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[2] Children with Retarded Mental Development.

[3] Only one form of each of these tests is available at present. See Supplement to Part One.

c) Scoring and interpreting the tests. In the scoring process, test papers should be inspected carefully. If any are found to have a column or a page omitted entirely, and if succeeding items were marked correctly, these papers should be discarded and the children listed for retesting with another test. For the remaining papers a grade score and an accuracy rating will be available. Scores, however, are not enough. Test booklets should be examined further to get a better picture of the child's reading; e.g., how much guessing has taken place; which specific items seem to give trouble; with which types of comprehension the pupil seems to succeed.

d) Further testing. Test C papers should be inspected for another reason. Children with "very high" accuracy ratings who have not completed the test may have read with characteristic slowness or may have been overcautious in making responses; but in either case, because they did not have time to read the more difficult sections of the test, they probably have not revealed their optimum reading powers. It is usually advisable to give such children a more difficult test, such as Test D of this series, in order to be sure that they have been measured on appropriate material. Some of the very poorest readers may also not be measured adequately by Test C; for example, those whose reading scores are below 3.0 and whose accuracy ratings are "low" or "very low." In most cases such results are due to indiscriminate guessing. These low scores and ratings may be checked by the administration of a simpler test such as the paragraph reading test of Test B. Test B includes, besides this paragraph reading, tests of sentence meaning and vocabulary, which may be used or omitted according to circumstances. The use of these three group tests of the New York Tests of Growth in Reading series should provide an adequate first measure of the reading ability of the seventh grade children referred for special help.

At this point in the selection process, the reading teacher will have available grade scores which represent with fair accuracy the ability in silent reading comprehension of each of the children on the list of candidates for the special reading program. These scores can now be entered on the summary sheets and compared with the previous test results.

(3) Eliminate children whose test results show good progress

The reading teacher can reduce the original list at this time by crossing off the names of children whose reading scores revealed large gains in achievement since the preceding test and who are judged, by reference to all available data, to be able to make further progress without special instruction. Again, no exact score on a reading test can be set as an upper limit for selection of a reading group, since it is recognized that different school conditions alter the situation for the individual child. In general, however, seventh grade pupils whose reading scores are as high as sixth grade have sufficient ability to benefit from reading instruction in the regular classrooms. They should not be selected for this special program because there are many children with lower scores who need help more urgently. Exceptions are pupils of very high intelligence whose reading scores, if they paralleled mental growth in other respects, should be considerably above the average for their grades. For such children, a brief period of reading diagnosis and intensive remedial instruction is needed and when given usually enables them to make progress at a much more rapid rate. The very bright child of junior high school age who reads with only sixth grade skills is really a retarded reader; but he is ordinarily omitted from the special reading program in most schools because of the pressing need for helping children whose difficulties are more severe.

(4) Interview each child being considered for the reading program

The listed data begin to have meaning now for the selection of the retarded readers, but the reading teacher still has many questions regarding these children. "Why did Doris have trouble with reading in spite of the high intelligence test score recorded in the first grade?" "What happened to Sam in the fifth grade to cause his marks in behavior traits as well as in reading scores to improve after several years of very inferior marks?" The reading teacher must make notes of such questions in preparation for an interview with each child.

Some reading teachers in the Bureau project hesitated to take the time for individual interviews with the children prior to selecting them for the reading program. To assign the retarded reader, however, without first talking to him about an out-of-class reading program may be quite upsetting, no matter how obviously he may need reading help. The time which the reading teacher spends even in brief interviews with each child really is time saved. Though few seventh graders themselves actually request reading help, very few refuse the opportunity for an out-of-class assignment when they are individually approached concerning the plan. The retarded reader is usually won over by the reading teacher's willingness to allow him scope to express his feelings, even when they show his disinterest in reading and dislike of school. Usually the interview makes the child feel that he is being looked upon by the teacher as an individual whose welfare is important. It is the beginning of a good relationship between pupil and teacher which is a major factor in the child's learning.

The teacher, in consulting the child before definitely selecting him for the reading program, tries to learn something of his readiness to accept and benefit from reading instruction. Because there are always more children who are retarded than the teacher has time for, it is important to select first those who are most likely to benefit. This is by no means easy to forecast. For example, the fact that a child has average or better intelligence is no guarantee that he will begin to learn rapidly as soon as special reading instruction is provided. When the normal or bright child has a history of difficulty in learning to read, it is usually because of long resistance to instruction due to severe emotional problems. If such a child can be given freedom to choose, and he himself says that he would like help with reading, it may mean that he is taking a step forward in assuming responsibility for facing his learning problem. If, on the other hand, he strongly objects to the plan, it is usually wise for the teacher to suggest that he may have a longer time to decide if he wants to join a reading group. In the meantime, the teacher would be able to refer such a child to the attention of the supervisor or the guidance counselor for further study. It has been found that this type of child, if not pressed to accept the special program, will sometimes himself ask for help later on and then be more ready to cooperate.

Occasionally, also, a child's reluctance to be assigned to a reading group stems from a real conviction that he has just made good progress (perhaps after having had remedial reading instruction in the elementary school) and his wish to try to follow the regular program in the junior high school without going to the reading room may be a sign of a desirable growth in independence. Such a point of view should be met with respect. In fact, the reading teacher can well add her own encouraging approval to the child's good feeling about his accomplishment, at the same time letting him know that the junior high school reading room is a resource which he may use if he finds, after all, that he does need further help.

After each interview the teacher makes jottings of notes which may help to clarify some aspect of the child's reading problem. Information which the child volunteers concerning his experiences and which reflects his problems and interests is worth noting. This information helps the teacher in doubtful cases to decide which children are to be selected. For those taken into the reading program, these data also provide continuity in the pupil-teacher relationship; the material the child has offered in the interview may guide the teacher in making appropriate instructional plans for the child.

(5) *Attempt to assess each child's potential abilities*

Intelligence is not the only factor which determines a child's capacity for learning; it is influenced also by such factors as physical vigor, emotional maturity, and other factors which are associated with an individual's motivation for learning. Reading achievement among school children is, however, highly correlated with intelligence as measured by group tests. And it is perhaps for this reason that it has become customary to evaluate a child's retardation in reading by reference to his intelligence test scores. In spite of the difficulties involved, the junior high school reading teacher also attempts to consider each child's reading scores in the light of whatever measurements of intelligence are available.

a) LIMITATIONS OF GROUP INTELLIGENCE TESTS. For these children, however, too much dependence cannot be placed on the results of the intelligence tests given in the sixth grade city-wide survey. These tests require the reading of directions and of verbal test items which are too difficult for the retarded reader. Regardless of the quality of his reasoning ability and of other aspects of his mentality, the child with reading difficulty generally obtains a low score on practically all group tests of intelligence given in the fourth grade or later. Nevertheless it has been found advantageous for the reading teacher to study the cumulative record of group test ratings obtained by poor readers, for some tests have been found to have more validity than others in the case of these exceptional children. By taking these test data into account, it is possible to make a better estimate of a child's mental capacity than without this information.

For example, the record card of Anthony, a seventh grader with a reading grade score of 3.4 on Test C, shows a typical discrepancy in IQ's obtained on group tests before and after the period when reading is an expected skill:

Grade When Test Was Given	Name of Test	Form	IQ
I	Pintner-Cunningham Primary Test	A	96
VI	Pintner General Ability, Verbal Series, Intermediate	B	71

The reading teacher in this case knew that the latest IQ (71) was to be disregarded because Anthony was unable to read the test on which it was based. Moreover, the fact that he once had received an IQ in the average range (96) caused him to suspect that this boy was working far below capacity, and he was therefore assigned to a reading group. This judgment was later confirmed when Anthony was given an individual psychological examination by the Bureau psychologist and obtained an IQ of 98 on the Wechsler-Bellevue Intelligence Scale. The psychological examination showed the value of the early test (given before reading was required for responding to the group test) and entirely discredited the results of the verbal test given in the sixth grade.

Another example is that of Dorothy, who had obtained an IQ of 75 on the same verbal test while in the sixth grade. Several years before, she had been given the Otis Quick-Scoring Alpha Test, which requires no reading, and on this test the IQ was 107. It would have been unfortunate to exclude Dorothy from the reading program, as her subsequent progress demonstrated; but if selections had been made on the basis of the latest group test results alone, this might have happened. These are by no means exceptional cases.

Because problems of this sort arise so frequently, reading teachers should not eliminate as "dull" any candidates for the special reading program if their record cards show average or low average intelligence ratings on a group test which is not dependent upon reading. Some of these tests in frequent use in the elementary school are: Pintner-Cunningham Primary Test, Otis Quick-Scoring Alpha Test, and the non-language forms of the California Mental Maturity Tests. This is not to imply, however, that all children obtain correct or optimal ratings on these group tests, for results are subject to other kinds of error. Any situation or condition which interferes with the normal attention or motivation of a child when taking a group test may lower the resulting intelligence test score; for example, lack of eyeglasses needed for close work.

Regardless of how valuable they are in indicating reliably the intelligence of the majority of school children, mental ability tests which require reading are of little value in indicating the ability of the retarded reader in the junior high school. Among these are the Otis Quick-Scoring Mental Ability—Beta Test given in some schools, and the Pintner General Ability, Verbal Series, frequently used in city-wide surveys. If the plan for selecting children for reading help uses these verbal test results as a basis for eliminating children with low scores, gross errors can be made. For example, a girl whose paragraph reading score at the beginning of the seventh grade was 4.8 had a record of an IQ of only 72 on a Pintner General Ability Test and was therefore not included in a reading group. Apparently the reading teacher in this case failed to note that three IQ's obtained in the primary grades were all above 100 for this child. That she had at least average general intelligence was later verified by an individual psychological examination; the girl was then placed in a reading group.

b) DESIRABILITY OF INDIVIDUAL PSYCHOLOGICAL EXAMINATIONS. A few of the children retarded in reading in each school will probably have been given individual psychological examinations by psychologists from the Bureau of Child Guidance. In such cases reports should be available in the principal's office, to which reference can be made. Individual intelligence ratings are always considered to give a more reliable measurement of intelligence than any group test score. Teachers sometimes find these test results entered on children's record cards and are able to distinguish the individual examinations from group tests by the names of the commonly used individual scales—Revised Stanford-Binet (Forms L or M) or the Wechsler Intelligence Scale for Children, abbreviated as WISC.

c) EXCEPTIONAL CASES. Usually children with IQ's below 80 on individual examinations require some general adaptation of the curriculum rather than assignment to a reading group. Sometimes, however, such a child during adolescence comes to recognize his need for reading, may express a wish for special help, and show a new capacity to cooperate in facing his learning problem. The twelve-year-old child with an IQ of 80 is theoretically capable of at least fourth grade reading achievement. If his reading scores are already at the fourth grade level, he may be said to be "working up to capacity" and therefore may not be in need of special reading instruction. If, on the other hand, he is only a beginner in reading, he is a retarded reader in the sense of being a person working below his indicated capacity, and should be able to profit from special instruction if his attitude toward such a plan is especially favorable. This is the exceptional, not the typical child placed in a reading group. The program should be flexible enough in its policy regarding selection of cases to admit almost any child who himself expresses a desire for special help. He should at least be given a trial period to determine by practical experience if he can profit from such instruction.

(6) *Determine upon a list of retarded readers who seem to fit the criteria of selection*

If the reading teacher has followed the procedures suggested here, at this point it should be possible to identify a majority of those children who definitely need special reading instruction and who seem capable of making progress. The tentative list has been reduced by eliminating those whose recent improvement in reading shows that they do not need special instruction and also those who appear to be retarded mentally. Those whose status is doubtful may be placed on a waiting list for further study. Since there are always more children in need of reading help than can be accommodated at the beginning of a school term, such a list is necessary.

The length of the list of children in need of reading help will differ, of course, in different schools. It may contain from fifty to one hundred seventh graders, depending upon the size of the school and the many varying factors which affect pupil performance. Probably no two reading specialists would agree exactly on the order of preference in selecting the first groups of children for reading help from such a list. Indeed, there is neither time nor definite information which enables the teacher to assess positively either one child's need or his capacity for response in comparison with another child. Much of the efficiency in selection depends upon the teacher's experience as well as his capacity for making good judgments. Since assignments are made for an indefinite period, as vacancies occur other children can be substituted.

Most reading programs have provided help for children who may be classified roughly into three groups: 1) a relatively small number of children of at least average intelligence whose reading retardation is severe for their intelligence but not extreme by comparison with grade and age standards; 2) a larger group of children whose mental abilities are considered to fall within the normal range but whose reading difficulties are serious since, with only approximately third to fourth grade reading skills, they are unable to use the textbooks provided in the junior high school; and 3) a relatively small group of so-called nonreaders who still lack the basic sight vocabulary and other skills required for beginning reading and usually have had no satisfying experiences associated with reading.

This third group comprises the children who most teachers naturally feel should be selected first for remedial help. It is true that if they are not mentally retarded children, they unquestionably need individual help and guidance. On the other hand, it is by no means certain that every reading program should concentrate its attention on the severely retarded at the expense of the children who, though less handicapped, are more capable of making a quick and efficient response to a program of special reading instruction. The normal or the bright child for whom reading has not become a useful tool for obtaining information also needs to be studied and helped so that he can make headway in school in accordance with his ability. In a small group, where specialized help can be given to diagnosis of difficulties and the development of the particular skills which are lacking, such children often respond quickly and need such help for only a short time. These children should not be overlooked. In fact many supervisors believe that they should be the first to be assigned to a special reading room.

(7) *Plan continued study and selection of children on a waiting list*

The nature of the waiting list varies in different school situations. For example, where a reading program has been established for a year or more, the reading teacher will, at the beginning of the term, have a small group of eighth and ninth graders for whom continued reading instruction was planned at the close of the preceding term. Together with the clear cases from the entering seventh grade, these make up the first list chosen for reading instruction. The waiting list in such a situation includes mainly seventh graders about whom more information is needed. Data may be incomplete because children were absent when reading tests were given or when interviews were arranged; or, there may be doubt regarding the ability of some children to profit from instruction.

In most schools the waiting list will include both the children whose need for reading help seems less urgent, and those children with the most severe reading difficulties who require individual diagnostic study. With these the reading teacher should have the assistance of other specialists. Sometimes the guidance counselor has important information from a social agency, the Bureau of Attendance or the Bureau of Child Guidance. Many of these children should have the benefit of individual psychological study and some need a more complete clinical service. Because of the limited opportunities for securing these special facilities, the reading teacher is sometimes called upon to accept for observation and instruction the nonreader who is truant, delinquent, withdrawn, or otherwise resistive to the instructional program. Sometimes these children can be assigned to a very small group in the reading room. At other times the reading teacher realizes that the primary need is for a different kind of special service; for example, instruction by a speech teacher, referral for an eye examination, or placement in a class for foreign-speaking children. In the Bureau's experience, teachers assigned to the reading programs in the junior high schools helped with this guidance of the severely retarded readers. Indeed, the "waiting" list is to a great extent a misnomer, for the reading teacher actively works to reduce it by continuing the study of the children and assigning for reading instruction as soon as possible those for whom there is an appropriate place.

3. Arranging the Reading Schedule

Arranging a reading schedule is a complex and time-consuming job

The reading teachers in the project found that the job of arranging the schedule was influenced by such factors as the educational and personal needs of the pupils, the needs of the school, and the preferences of pupils, teachers, and supervisors.

Among the problems that arose, the following were prominent:

How large should the reading groups be?

How many periods a week should each pupil come?

On what basis should pupils be grouped?

Which periods should pupils "miss" for reading?

What preliminary data does the reading teacher need?

Should unassigned periods be included in the schedule?

These and similar problems were, of course, settled differently in the various schools. Answers to the first two questions depend on whether the school decides to concentrate on the most severely retarded pupils or on those not so retarded. In general, the lower the reading level of the pupils selected, the more individual help they need. The poorest readers need frequent instruction in very small groups. Virtual nonreaders, for instance, cannot do much independently while the teacher is working with somebody else. In the Bureau project, these pupils were usually not assigned in groups larger than three. Those who were about two or three years retarded appeared to benefit most when taught in groups of about six. Since they had the skills of the fourth or fifth grade, they were able to engage in independent reading and writing activities on those levels. Very retarded readers needed to have instruction three or four times a week; nonreaders required daily instruction. Even those not severely retarded came to the reading room at least twice a week. Assigning pupils to reading classes only once a week was found to be of little use, especially when holidays and pupil absences often occurred on that day.

There are various ways of grouping pupils

Because of easier administration, some teachers preferred to assign children from the same class to the same reading group regardless of the variance in reading levels. In this way, schedules were more easily adjusted and pupils were not so likely to forget to come for instruction. Other teachers found it more beneficial to assign pupils to groups according to approximate reading level. This homogeneity provided for economy of instruction and for a socializing influence on pupils who could work together and participate in group discussions. Furthermore, materials and reading assignments were more easily administered. A number of the reading teachers combined the two plans in various ways. The less experienced teachers found it wiser to group pupils in so far as possible according to reading ability.

Good planning is of the utmost importance. The teacher must know what can be accomplished with groups and with individuals in one reading period and how many different activities may be included. Independent activities assigned to pupils should be varied so that a pupil will not usually carry on only one assignment during the whole period.

The time selected for the special reading period may create difficulties

Pupils often acquire negative attitudes toward remedial instruction if they have to miss their favorite subjects. Plans to schedule pupils for reading instead of for subjects like art, shop, and physical training often fail if these subjects are liked by the pupils. While no hard and fast rules can be given, it has usually been found that:

The "block program" of school organization is favorable since pupils can substitute remedial reading for part of two "blocked" subjects without too much hardship.

Regular English classes can often be replaced by special reading instruction.

It is inadvisable for pupils to miss more than one weekly period of a content subject, except when two subjects are "blocked".

Severely retarded pupils should not be deprived of subjects they particularly enjoy. It is wise to remember that they may be receiving no benefit from certain content subjects that require reading ability and a good deal from shops and other areas in which they can function satisfyingly. An interview with a boy or girl often reveals individual preferences.

It is unwise to form a group of girls in which there is only one boy or vice versa.

Some teachers of content subjects object to releasing pupils for reading. If a tactful interview is of no avail, the hour for reading may have to be changed. Objections of this sort rarely arise in schools where the supervisor has made the special reading program and its aims the subject of a thorough discussion at staff conferences.

Certain data are needed before schedules are made

When making the schedule the teacher should have at hand such data as:

- The programs of all the classes involved with complete data on hours and classrooms
- The reading test scores and any other available information on individual reading needs
- Strong pupil preferences (ascertained through interview)
- Teachers' and supervisors' preferences
- Other pertinent data (which may have been gathered during the selection period) on personal adjustment, health, etc.

Unassigned periods are needed for essential activities

The reading teacher needs some unassigned periods for essential activities like these:

- Interviews with pupils, parents, other teachers, supervisors, nurse, guidance counselors, social workers, psychologists
- Record keeping
- Arranging and maintaining the reading room
- Checking pupils' work, analysis of errors
- Preparing for instruction and consulting books by authorities on reading
- Making charts and practice materials
- Studying new instructional materials and tests
- Ordering supplies

The reading program should be flexible. Changes should be made as needed, especially since some pupils are discharged during the year. It is advisable to maintain a waiting list at all times so that vacancies can be filled quickly.

A useful form of reading schedule is one similar to, but much larger than, the average program card so that the names of pupils selected can be listed for each period of the week. The teachers in the Bureau program found it useful to post this schedule in the reading room. A copy was sent to the supervisor by the end of the first month or sooner if possible. Official teachers and teachers of other subjects should also be notified when their pupils are assigned.

V. How the Special Reading Program Functions

1. Instructional Aspects

Diagnosis of the pupils' needs is important

Sometimes reading programs have developed in the junior high schools where one teacher instructs as many as seventy-five or more pupils in the course of a year; in such situations reading diagnosis in the formal sense is necessarily at a minimum. The special program is neither a clinical nor a tutorial program, but rather a way of instructing children with severe reading difficulty both by stressing individualization and by developing methods appropriate to the small group. In order to meet the instructional needs of retarded readers, the teacher, of course, must know what their most important needs are. One need is common to all of these children—to associate pleasure and success with the very first experiences in the reading room, since in the past they have associated failure, dislike, and discouragement with reading.

It is more important to learn what each child already knows than to begin with an inclusive list of his specific types of errors. The latter should, of course, be observed by the teacher and recorded inconspicuously for future reference. Meantime, no matter how small his store of knowledge—how limited the sight vocabulary or how few the skills with which to analyze new words—what the retarded reader can do should be discovered and used to advantage in the first reading experiences.

(1) Discover and reinforce a child's assets

From the results of the group reading tests, the data of the interview, and the other material gathered during the process of selecting the children for the reading program, the teacher has acquired a body of information having diagnostic value. Not only is there opportunity to summarize the types of errors the child has made on the tests but, more important, the teacher can record the content and apparent significance of the correct responses. Each child has also supplied further information as to what he can do in reading, what he likes, and what he wishes he could read. On such positive items, meager as they may be, the teacher will build solidly. If, on the other hand, the teacher begins by actively searching for the gaps in the child's equipment, he is likely to meet with apathy if not with active resistance on the part of the retarded reader. Every child with a reading difficulty has often heard about how much he does not know; he has seldom achieved recognition and encouragement for having in his possession some foundation stones upon which a structure can be built. This is not to say that the teacher attempts to make light of the child's problem. On the contrary, serious talk about essential skills to be learned is of value with both the individual and the small group when it is appropriate. First these children must have assurances of the teacher's faith in their ability to learn.

The teacher may, however, need to make a deliberate effort to retain and extend his faith in the potential capacity of those of his pupils who have the most severe reading deficiencies. Inadequate information and skills in all areas of instruction which are dependent upon reading tend to make these children appear dull. Frequently their habits of social immaturity or emotional withdrawal may also be mistakenly interpreted as indications of lack of mental capacity. When the reading teacher begins to doubt that some of his most difficult pupils have normal mental ability, it may be helpful to make a real attempt for a day or a week to observe the children in question by means of a systematic plan. Usually such observations will reveal qualities in the child which had not been noted previously.

(2) Use a check list to observe children

A check list prepared at the Reading Guidance Center was used successfully for this purpose. This list, which follows, is an enumeration of various ways by which the intelligence of children with reading difficulty may manifest itself:

Has evidenced good learning capacity in certain activities not dependent upon reading—special interests, hobbies, school subjects like mathematics, shop.

Shows better vocabulary development in conversation than in reading.

Observes and points out essential aspects of things; e.g., in the case of pictures, objects, social situations, ideas.

Notes similarities and differences—is able to utilize comparisons and contrasts in thinking.

Detects absurdities in situations; e.g., in cartoons, stories or happenings in real life.

Comprehends meanings, sees implications, or offers interpretations of experiences.

Demonstrates ability to plan activities and foresees probable happenings.

Remembers facts which are important or significant.

Solves problems by logical or systematic methods.

If the teacher wants to keep an actual record of his evaluation of a child, the traits can be listed on a sheet of paper with sufficient space between the items so that relevant examples can be conveniently noted.

(3) Diagnosis is continuous and interwoven with teaching

Diagnosis is not a procedure which the teacher uses only once at the very beginning of instruction; it is never complete. The teacher skillfully weaves diagnosis into the fabric of instruction even when he is most intent upon a technique of teaching. The teacher's awareness of how each child in a group is working—together with his analysis of the reasons behind successes and failures—this is the diagnostic process in action. As for the children, only after they have fully accepted the special reading program and experienced a little progress in learning, can they themselves feel some interest in self-analysis or in the teacher's introduction of logical approaches to reading errors.

(4) Oral testing aids diagnosis

This informal continuing effort at diagnosis which the experienced teacher includes in his daily instruction of each child may seem to the beginning reading teacher to lack direction and specific aim. If this is the case, there is value in using more formal diagnostic instruments such as the standardized oral reading tests of Gates, Gray, or Durrell. (See Supplement to Part One.)

A detailed manual of instructions accompanies each of these tests. Since they must be carefully timed, they cannot be administered during regular reading activities. It is well, therefore, to select for this individual testing only those children regarding whose reading the teacher lacks essential technical information. It is not necessary to give all parts to each child. For instance, in the Gates Reading Diagnostic Tests, the response to the reading paragraphs will indicate what other parts would throw further light on specific weaknesses. If as the child reads he seems to be guessing words almost entirely on the basis of context clues, the paragraph reading test may be followed by the untimed word pronunciation test which presents words in isolation. For more specific information on the child's word recognition skills, the teacher may use additional parts such as those involving giving letter sounds or recognition of phonograms.

For most purposes, reading teachers find ample opportunity for discovering the retarded readers' typical errors and skills by using more informal diagnostic methods. Of considerable importance, for example, is the teacher's careful observation of each pupil's unprepared oral reading of appropriate textbook or workbook selections. This procedure is described in Part Two of this Guide.

Subject matter and methods must be adapted to the pupils' needs

Since Part Two of this Guide in its entirety deals with specific methodology of reading instruction, it is unnecessary to do more here than to highlight certain aspects which apply particularly to the out-of-class program.

(1) Arrange for a variety of methods and materials

There is, of course, no predetermined course of study, no set of books or topics, or series of exercises which can transform retarded readers into good readers. Just as these children's failures in the past do not follow uniform patterns, neither do their renewed efforts to learn move along a single pathway. The reading teacher, therefore, must have available a variety of methods and materials and know how to select and to use those which are appropriate to the individual child and to the group. The challenge to expert teaching is implicit in the assignment of a teacher to do this work; for in relation to every child in every group there is the continuing demand upon the teacher's thorough knowledge of materials, mastery of technique, and ability to evaluate and predict children's responses to instruction.

Usually, the more retarded the child is in reading, the more urgent it is for both teacher and pupil to feel that the selected lesson plan fits the child. At the same time, this child also will benefit if he can be drawn into the group and have some real feeling of participation with others in reading experiences which are enjoyable and contain some elements of success. Hence the teacher has the two-fold task with every group of retarded readers of (1) discovering how to approach each child as an individual with material and methods which fit his specific skills, interests, and deficiencies; and (2) of developing into learning situations for the group the elements which are common to all members.

(2) Consider the individual in the group

Group instruction is necessary not merely as a matter of economy of time, but because retarded readers particularly need help in learning how to work with others. They have all experienced isolation in classrooms because of their inability to follow written instructions and to use textbooks generally appropriate for their classmates. In the small reading group, they may also feel ill at ease at first and uncertain that they can do what is required. When some children come to the reading room for the first time, they may announce that they cannot read and imply strongly that the teacher will not be able to teach them. Because this feeling of frustration is so general among the retarded readers of junior high school age, it is especially important that the teacher be fully prepared for a first meeting which will change this atmosphere and substitute some initial experience of success. It is well to have attractive books immediately available for inspection which are easy enough for the children to be willing to attempt to read. A discussion period in which the general plan of work will be suggested by the teacher and in which children are encouraged to ask questions and to express feelings is also valuable. This kind of discussion should be so directed by the teacher that the children are aware of his interest in them and also feel his competence.

If the teacher finds one plan ineffective, he must be willing to experiment with different types of approaches. Indeed, the teaching of retarded readers calls for doing what has been attempted many times before but with a fresh approach. Repetitive use of materials or methods which did not help the child in the past is usually worse than no lesson at all, for the child instead of moving forward to new learning is likely to re-enforce old memories of failure. If, on the other hand, the severely retarded reader can feel that he is having a new type of instruction, he is more likely to focus his attention on his assignment and begin to retain what is taught.

(3) Provide suitable materials

Since in most cases so much misery has accompanied the child's failure to read, the need is for reading matter which has an immediate appeal. It is obvious, however, that the more limited the pupil's reading skills are, the more difficult it is to find books and other reading materials which have story content, information, or ideas which are sufficiently advanced to interest the eleven- to thirteen-year-old pupil. Books which are intended for the seven- or eight-year-old child may be rejected by the retarded junior high school pupil whether or not he expresses this feeling openly. Inasmuch as the teacher is limited in his choice of suitable materials at these low levels, he should try to seek out those which seem the most mature in content. Sometimes the attitude of the teacher influences the pupil's acceptance of reading materials. Often the children in the project worked willingly with the simple books when their own problems were made clear to them and when they realized that the teacher was genuinely interested in their progress.

Stories about animals and about fantasy figures such as the Disney characters are highly acceptable even though they were written for younger children. These books about the Disney characters are liked because they cut across age categories and are popular even in the adult world. Adventure stories and humorous materials are also popular. The ability to read even a small joke or a ludicrous caption on a cartoon provides the retarded reader with an experience of enjoyment from which he is usually excluded.

In addition, the skilled teacher will gradually introduce more material systematically devised to correct errors, such as that included in the instructional test or workbook. As they see signs of progress, children more frankly recognize their own needs, are free to ask for help, and profit more directly from each lesson. At all times it is necessary for the teacher to avoid a stereotyped approach, for there are many avenues to learning.

2. Record Keeping

Record keeping by the reading teachers in the Bureau project varied markedly in both the amount and the types used. It was found that the most helpful record keeping was that which was so well planned and so systematic as to be comprehensive and yet not burdensome. Furthermore, it was successful only to the extent to which records were consulted and interpreted to further the teachers' understanding of the children and knowledge of their progress.

With all reading groups, it is desirable that teachers keep an exact record of the pupils' attendance with dates of entrance and discharge. These items can be later entered on cumulative record cards. Data accumulated during the selection period are helpful—previous reading grades, intelligence test entries, and other significant contributions from elementary school records, health cards, and similar sources.

Various kinds of records are needed

Reading teachers will find that records to be accumulated are of two general kinds:

those related to reading growth
those indicating personal-social development

Data recorded may come from widely different sources; e.g.,

written tests
oral tests
specific weaknesses identified and improved
cumulative lists of sight words learned (for beginning readers)
assignments given and completed
reading matter chosen and read by the child on his own
spelling improvement
samples of creative writing
personal interviews
interests inventories
evidences of changing attitudes
recommendations from other teachers and from parents

Anecdotal records are particularly useful in showing growth over a considerable period of time.[1] Reading teachers in the project differed in their use of this kind of record according to their ability and interest. No attempt was made to keep a day-by-day diary for each child, but significant observations were jotted down briefly from time to time when they indicated changes in behavior or in attitude toward reading. In looking back over a series of entries, the teachers were able to gain perspective about their pupils. Notes were of this sort:

> Tom came to the reading room all week without having to be sent for.
>
> Robert came in and cried, "You know what—I read the signs on TV last night!"
>
> Vera asked to take "Bambi" home for the week end.

There are various ways of keeping records

The reading teachers used different systems. Some favored keeping all the records for a single child in individual folders or envelopes. Others found it more convenient to use looseleaf notebooks as well as folders. The notebook was used for such day-to-day notations as specific errors, assignments given, and observations on behavior. The folders were reserved for pupils' test papers, notes from parents, confidential reports, and the like.

Pupils also kept their own records; as, for instance, a simple graph of performance in some specific skill Many teachers had pupils do part or all their assignments in notebooks, thus developing a record of progress. In many cases, it was found advantageous for pupils to have envelopes in which to keep such items as notebooks, word lists, and other individual material.

3. Guidance Aspects of the Reading Teacher's Work

The pupil-teacher relationship is of great importance

In the junior high school special reading program, the pupil-teacher relationship was considered by all to be the most important influence for adjustment as well as for improvement in reading. This relationship, of course, varies in many ways in accordance with all the individual differences characteristic of pupils and teachers. Though it is recognized that it is not possible for the reading teacher to be drawn to and to admire every child in his groups, nevertheless the successful teacher in this work has broad sympathies and the capacity to like and understand a great many different children whether or not they are attractive in the ordinary sense. The teacher's warmth and his earnest wish to help the child are aspects of feeling which are essential components of this relationship; they blend with and give life to instructional skills so that the teaching process acquires strong motivating power for the retarded reader.

A teacher who is able to establish relationships which are warmly accepting and also strengthening because they are pedagogically correct usually does not depend upon clinical knowledge or a case-work approach. Angelo was a most unhappy and forlorn boy of twelve. He was making no progress in reading and seemed to be too timid to take a place as an active member of his group. After a while, he timidly confided to his teacher his interest in making things and showed his ability in drawing and design. This clue to the area where Angelo could be motivated to attention and effort was immediately used; the teacher searched for and found a book with many pictures and simple text which dealt with these matters. Helping Angelo to read this aptly chosen book brought him close to her almost at once and probably made him feel that because he was respected as a person who could create something, he was also someone who might learn how to read.

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[1] See Educational Research Bulletin No. 11, *A Guide To The Use of Anecdotal Records.*

Such a favorable beginning of the pupil-teacher relationship goes far toward establishing it securely as a positive force which can support the child while he tries himself out in a new learning situation. To maintain this rapport with the individual pupil in the presence of the group, where pressures of time and the needs of other children may prevent further personal talks, requires the use of other intangibles of method having to do with group work. It was possible, for example, for Angelo's teacher to show him by the way she directed his independent work (an occasional suggestion that he might like to decorate his notebook or that he could spend time making a drawing to illustrate a story read) that she remembered what had been said.

The importance of the teacher's feeling of confidence in the child can hardly be overemphasized, for these eleven-, twelve-, and thirteen-year-olds know a long experience of failure. They may have been spared the parental comments which hurt most (for example, "Your little brother can do better than that!"), but most of them have caught the meaning of their parents' or their teachers' discouragement even when the attitude was unintentionally revealed in a fleeting facial expression or a hopeless gesture. The reading teacher, when most successful with a disturbed child, must radiate his own attitude of confidence in the power of the child to overcome his difficulties.

The small group has therapeutic possibilities for the individual

These values do not arise naturally just because the number of children is small or because it is the teacher's wish to develop the kind of group feeling which stimulates friendly and mutually helpful relationships. Sometimes because of deviate behavior of one or more members, it is very hard for the teacher to bring about this good feeling within the group. Though there are fewer personalities, they may impinge more directly upon each other than in the usual classroom. Rivalries and jealousies may be sharply present and aggression less disguised. Since children in the reading room are helped by knowing that each one has problems, freedom to express needs is permitted within limits. It is good also for feelings to be aired as long as the teacher knows that by this means the group as well as the individual is moving forward toward integration. A wise teacher, however, avoids argument with children who are in an unhappy or angry mood. Frequently these are leftover feelings which have originated elsewhere and should not grow to include the reading situation.

There are a number of definite regulations which the reading teacher makes clear. Some of these are: strict adherence to the time schedule; the care of individual and group work materials; the orderly return of supplies to their assigned places. Children do not always enjoy adhering to these requirements, but they like less dealing with a teacher who is lax or unpredictable. Their lives out of school are often devoid of that sense of security which results in part from association with adults who know what is good and are capable of organizing activities so that they are successful and satisfying.

Progress is not always swift and straightforward. Sometimes the first steps of a child's effort to readjust seem like backward movements. One who has suffered more than his share of deprivations may become dependent on the teacher and demand too much of his time. If the child persists in coming to the reading room at times when he is not assigned there, the teacher may put the case to him clearly by saying, "I know you want to come here now (or, stay longer) because you like working in this room, and I like having you, but your time is not until this afternoon."

Sometimes the retarded reader is helped most to conform to behavior standards by being asked to help another child. It does not matter how small his capacity for assisting actually is, as long as it is real. Experience has shown that the tonic effect which comes from helping one another is completely new to these children, who have failed so long at school or who have been excelled so consistently by more competent brothers and sisters. Both the shy and withdrawn child and the one who is aggressively antisocial may be stimulated to a new kind of effort by a genuine appeal for help. Even if he has only third grade reading skills, the retarded reader may be able to help the nonreader, for example, with his study of cards which contain a basic sight vocabulary. Two severely retarded readers may help each other and derive social as well as learning benefits from a planned study arrangement. Of course, the teacher does not allow such inter-pupil relationships and groupings to outlive their usefulness, and he is always aware of what is going on and is ready to give help where it is needed. The teacher has time for each child and each feels his friendliness, fairness, and his pride when something hard is attempted. Even with the most retarded, the feeling of isolation diminishes, for he is having help not only with reading but in learning to work amicably with other children.

The teacher's acceptance of every child is the tie which brings the group together. Gradually there is a cohesiveness which allows for some good-humored banter, for frank recognition of differences among the children—in problems, in interests, and in what they are able to accomplish. There is give-and-take about this, because there is general good feeling. In most cases as the children realize that they are making progress in reading, they begin to expect accomplishment of themselves and reach the stage where they are able to look to the future as other children do.

Cooperation with other teachers is essential

As has been indicated earlier, cooperative relationships among all teachers dealing with the retarded reader are essential. Especially with the exceptional child who is severely disturbed, instructional efforts may go astray; children become confused if teachers do not agree on objectives. For example, consider the case of Joan who because of extreme timidity had for the first weeks of the term remained silent and uncomplaining in her science class though she could not read the assignments or follow the group instruction. After being placed in a special reading group, she became somewhat more assertive and suddenly blurted out in the science class that she did not understand some direction written on the blackboard. The teacher, who was dealing with a large class which had a tendency to unruliness, probably felt that one of the "good" children, about to stray to the ranks of the troublesome ones, needed swift discipline. Since the season for report cards was at hand, she wrote a note on the card, "She complains about her work, but she does not try." The result was that Joan, who was very fearful of the disapproval of her father, did not take the card home. The reading teacher in the meantime was praising her for the work she was doing in the small group, and the other children were also led to share the satisfaction in her progress. Yet no indication of this progress had been noted on the report card. Clearly, if any special message was to be sent home, this girl needed for once a favorable word from the school.

The question of how such conflicts in different teachers' handling of the same child are to be avoided is not easily answered. Theoretically, there should be general provision for individual differences in children's work assignments in the regular classrooms so that no child would be confronted with a task entirely beyond his capacities. Practically, however, there is considerable difficulty in implementing this educational objective. One means for meeting the problem has already been indicated—planning for retarded readers must be the concern of the entire school and not just of the reading teacher. Another way of resolving differences is for teachers to have the opportunity to consult with one another regarding the specific needs of children with whom they are mutually concerned. In the tight time schedules of the large junior high school, there unfortunately is little place for such conferences. In view of these circumstances, much depends upon the resourcefulness of the reading teacher and the supervisor to devise ways of communicating the needs of individual retarded readers.

Sometimes children in trouble turn naturally to the reading teacher in an emergency. For example, Helen, who had torn up her report card in a flare-up of temper, then was appalled at her own act and came weeping to the reading teacher, "What shall I do? *You* understand me and my family." What the teacher knew of the home situation in this case was of no greater importance than was her good relationship with other teachers and her supervisor. The important fact was that she could feel free to take the initiative in having the report card copied, thus rescuing Helen from paying the full cost of her anger.

When a child begins to make substantial progress in reading, he naturally takes a more lively interest in what is going on in his regular classes. Since the class activities no longer seem so far beyond his reach, the retarded reader may protest the frequency of assigned periods to the reading room. Children in this state complain, "I'm going to fail in social studies if I come here" or "I have to take a spelling test in my English class." The reading teacher recognizes these statements as unmistakable signs of progress in a child. He may take steps in such cases to reduce the number of reading periods per week. Certainly he will assure the child that he also is eager that work in the reading room should help and not hinder him in his regular classes. Again, these reactions of the child are to his total situation and call for a consultation among teachers rather than for individual action by the reading teacher.

4. Cooperation with Health and Child Guidance Services

Health problems of the children must be observed

The reading teacher's function has not been interpreted as including any special responsibility for the care of health problems of children. Every teacher, however, is expected to observe children with a view to noting symptoms which may need medical attention. The reading teacher has particular reason for being interested in the health of the children in his groups, because there are a greater number of chronic and uncorrected physical difficulties present among children with reading problems than among an ordinary sample of children.

Certainly there were more children in the reading groups with visual defects who did not have adequate correction. In one sample of health cards studied, there were also an appreciable number of children with notations of earaches, hearing loss, recurrent colds, underweight, and overweight. Among this group the health histories also included numerous cases where there had been serious illnesses, accidents, early hospitalization, and stays in health classes. The large number for whom the health cards contained observations of "nervousness, undue restlessness, very excitable, emotional disturbances, unstable, tires easily, listless, inattentive" (constituting two thirds of the total group) suggested that an intimate relationship existed between physical and emotional difficulties in these cases.

The teacher's concern with symptoms of physical disorder is to take suitable action to encourage children and their parents to arrange for care which will improve health. The teacher of the small group can do a great deal to enlist the interest of children in the better care of their own bodies. Moreover, the opportunities to observe children closely enables the reading teacher to notice recurrent health needs which may be more easily overlooked in the large class.

In the schools where the Bureau staff worked, reading teachers were able to refer children to the attention of health counselors and school nurses for various types of health examinations. Quite a good deal of time was spent in following through on cases needing eye examinations, correction of lenses, ear examinations, hearing tests, and also general physical examinations. Usually official teachers were glad to have the help of the reading teacher in these matters. The amount of actual help received by children depended somewhat upon the resources which were available in the immediate community. In general, it was observed that recommendations for examinations which came from the reading room received prompt consideration. The impression was that parents also seemed to see a relationship between the solution of health problems (e.g., in care of eyes) and the improvement of reading, for they also responded well when notes were sent or when children themselves conveyed messages.

The services of child guidance agencies should be utilized

The reading teachers differed in the extent to which they obtained or attempted to obtain the help of guidance services for the maladjusted children in their groups. What they were able to accomplish in this phase of the work depended upon the resources available to their schools and also upon their own interest, training, and experience in the field of guidance.

Especially in schools receiving full service from a unit of the Bureau of Child Guidance, certain children with reading difficulty who had been studied by the Bureau during the elementary grades were referred to the attention of the junior high school by the Bureau. Reading teachers reported that it was very valuable to have access to the psychological reports prior to assignment to a reading group. They also commented that it was helpful to be able to consult with the social workers when the children were under treatment. Occasionally a reading teacher participated in a case conference called by the Bureau of Child Guidance.

Various other clinics and social agencies also cooperated with the schools regarding children in reading groups. Whether contacts were made directly with the reading teacher or through the school guidance counselor or grade adviser, these opportunities for the teacher to participate in a case-work approach were generally beneficial. The only criticism was that the number of children for whom such service was available was much too small.

VI. Appraisal of the Program

As was indicated in the Introduction to this report, the Bureau project in junior high schools was first organized on a full-time basis in the fall of 1945. In the early stages of the program, three junior high schools (12, 60, and 65, Manhattan) were selected for experimental purposes. These three schools were chosen because they were fairly average in character and were located conveniently near the Reading Guidance Center.

In each of these schools, a reading specialist, drawn from the staff of the Bureau of Educational Research, was assigned on approximately a full-time basis for a period of two years (September 1945 to June 1947). Each school, too, had the part-time services of the psychologist assigned to the Reading Guidance Center, who was available for consultation concerning the adjustment problems of the pupils selected for special instruction and for further study of these cases. Several teachers in each school were selected for intensive training as reading teachers in the special program. Children chosen for the special reading program were, for the most part, incoming seventh grade pupils. An attempt was made to select those children who showed the greatest promise for improvement from among the most seriously retarded readers on the grade.

Results in the experimental schools show marked growth in pupil performance

Table III summarizes the results obtained in three experimental schools during the period September 1945–June 1947. Before considering the results presented in Table III, it is well to note that the average reading scores reported were obtained from a number of different standardized tests—the Stanford Intermediate and Advanced Reading Tests, the Metropolitan Intermediate Reading Test, the Los Angeles Primary Reading Test, and the New York Tests of Growth in Reading, Tests A, B, and C. In view of the wide individual differences among New York City pupils, no one test could meet the needs of all the schools. For some children, it was possible to utilize the results of city-wide surveys as estimates of initial status. More often, children were retested on a lower level test which measured their ability more accurately. The test results reported in Table III, therefore, are not strictly comparable from child to child, or from school to school. Nevertheless, they do serve to show general trends.

Because children came from different grades and were admitted to and discharged from the program at different times during the school year, average school grade placement at the time of initial and final testing has been indicated. Number of periods of instruction has also been reported, for this varied from child to child and from school to school in accordance with needs and available facilities.

Table III—Growth of Pupils in Reading Program in Three Experimental Schools

	Schools		
	A	B	C
Number of Pupils in the Reading Program	91	81	61
Average IQ (Pintner)	97	93	91
Status: Before Program			
Average Reading Grade	5.7	5.7	5.5
Average School Grade	7.1	7.5	7.4
Rate of Learning to Read	77%	72%	70%
Status: End of Program			
Average Reading Grade	7.9	7.5	7.8
Average School Grade	7.8	8.3	8.2
Progress During Program			
Average Number of Periods of Instruction	27	19	42
Average Gain in Reading Grade	2.2	1.8	2.3
School Grade Elapsed	0.7	0.8	0.8
Rate of Learning to Read	314%	225%	288%

For the 233 pupils who were placed in the remedial reading program in the three experimental junior high schools, at some time during the period September 1945 to June 1947, average reading gains were 2.2, 1.8, and 2.3 reading grades. This approximate two years of growth was achieved during an average of only seven or eight school months. The children in the program thus improved in reading at the rate of two to three reading grades per school year, or, as expressed in the table, at the rate of 225 per cent to 314 per cent of normal. (It is assumed that, in general, a gain of one reading grade per school year is normal for children with IQ's of 100.) These children were retarded readers and had not progressed at a normal rate as defined here. In order to evaluate their progress, their rate of learning to read while in the program has been compared with the rate at which they had actually been learning before entrance to the program.

Initial scores were interpreted from this point of view. The pupils at Junior High School A, for example, before entrance into the program in the first month of the seventh grade (school grade 7.1) scored on the average at reading grade 5.7. They had advanced in reading only 4.7 grades during their previous 6.1 years in school; their average rate of learning to read had been 4.7 ÷ 6.1, or 77 per cent of normal. Their average learning rate while in the program, however, was 314 per cent or 4.1 times as much. Learning rates in the three experimental schools, on the average, tripled and quadrupled.

The program is extended to include ten additional schools

In view of the demonstrated success of the program in the three experimental schools, the services of the Bureau of Educational Research were extended to additional schools. By the fall of 1949, fifteen additional junior high schools were participating in the program. The results presented in Table IV summarize the gains made by pupils selected for intensive work in ten of these schools. (Work in two schools was discontinued and in three only partial service was given.)

In interpreting the results presented in Table IV, it should be noted that most of the schools concerned were drawn from those where the general reading average for the total school population was low in comparison with that of the city as a whole. Moreover, the children selected for reading instruction were often the poorest readers in the school. A comparison of the average IQ's and initial reading grades of the pupils in these schools with similar data for the pupils in the three experimental schools, reported in Table III, indicates that the former obtained lower average IQ's and read more poorly than the pupils in the original experiment. The average IQ quoted in these tables resulted from the city-wide survey with the Pintner General Ability Test—Verbal Series. These results cannot be considered accurate measures of intelligence for these groups of poor readers. They reflect rather the severity of reading retardation in the various groups selected.

The character of the Bureau's service to the schools was also changed in several important respects. Reading specialists from the research staff were available to the ten schools on a part-time basis only. As a result, the research staff concentrated on training one selected individual to serve as chairman of the teachers assigned to the program in each school. The teacher so selected continued to conduct the program after formal relationships with the school were severed and to train additional personnel for future service within the school.

Inspection of Table IV reveals the same general trends noted in the three experimental schools. Children gained in reading, on the average, from one to two reading grades per school year. Average rate of learning to read was two to three times what it had been prior to the child's placement in the reading program.

The data given in Table IV, although indicative of marked growth during the period covered, seriously underestimate the effectiveness of the program undertaken in the ten schools. It should be noted that rate

Table IV—Growth of Pupils in Reading Program in Ten Schools

	Schools									
	D	E	F	G	H	I	J	K	L	M
Number of Pupils in the Reading Program	37	60	34	46	81	58	143	80	54	136
Average IQ (Pintner)	84	83	76	77	83	89	80	75	84	71
Status: Before Program										
Average Reading Grade	5.3	4.6	3.5	4.1	4.8	5.2	5.1	3.7	4.0	3.4
Average School Grade	7.1	7.2	7.4	7.1	7.9	7.2	7.1	7.5	7.2	7.2
Rate of Learning to Read	70%	58%	39%	51%	55%	68%	67%	42%	48%	39%
Status: End of Program										
Average Reading Grade	6.1	5.6	4.1	4.9	5.6	6.2	5.7	4.7	5.7	4.0
Average School Grade	7.7	7.8	7.9	7.9	8.6	7.7	7.7	8.3	8.4	7.9
Progress During Program										
Average Number of Periods of Instruction	53	43	34	89	55	38	16	45	101	40
Average Gain in Reading Grade	0.8	1.0	0.6	0.8	0.8	1.0	0.6	1.0	1.7	0.6
School Grade Elapsed	0.6	0.6	0.5	0.8	0.7	0.5	0.6	0.8	1.2	0.7
Rate of Learning to Read	133%	167%	120%	100%	114%	200%	100%	125%	142%	86%

of learning to read while in the program is contrasted with rate of learning to read prior to placement in the program. Thus, the child's rate of learning to read in an intensive reading program is compared with his rate of learning to read while in the elementary school. In order to arrive at a more accurate measure of relative progress, however, rate of learning to read while in the program should have been compared with what it would have been in the regular classroom in the junior high school.

Severely retarded readers who have attained little reading independence, as was the case with most of the children in this group, rarely improve in junior high school classes without special help. While severely retarded readers assigned to the program learned to read at double and triple the rate at which they had been learning before entering the program, the ratio of learning rates would have been still greater were it possible to compare learning rate in the program with that which would have been achieved by these children under ordinary classroom conditions. When considered from this point of view, the success of the program is seen in its proper perspective.

The reading teachers participated in the evaluation program

In addition to the standardized test results which were available to the reading teachers as evaluative measures of pupil progress, they also gained important insights concerning the growth of pupils selected for intensive work in reading from both direct observations and maintenance of anecdotal records. These records, which were kept throughout the course of the project, contained many evidences not only of pupil growth in basic reading skills but in more intangible aspects of pupil functioning. Many comments were noted referring to growth in reading independence; others stressed the greater utilization of the school library as one indication of the pupils' greater interest in reading.

Of particular importance were the teachers' reports of the change in the attitudes of their pupils. These children entered the program essentially maladjusted in school, with past histories of failure, little desire to read or to study, and with no confidence in their ability to learn. While, at first, children were wary of being taken out of their classroom to report to the reading room, in a relatively short time, they were eager to come. Some lingered in the reading room after the passing bell had rung; others expressed a desire to be allowed to attend more frequently. After their course of instruction was completed, some asked to be allowed to remain.

The children were asked to evaluate their own progress

In June 1949, all pupils receiving special instruction at that time in nine schools were asked to complete a specially prepared questionnaire for the purpose of evaluating their progress and giving their general reactions to the program. Of 422 children who responded, 96 per cent said that reading seemed easier to them now; 92 per cent liked reading better; 77 per cent said they took part more often in regular classwork; 93 per cent understood their textbooks better; 79 per cent reported that they read more than they used to outside the school. Responses to the question, "Are there any other ways you have changed since you have been getting help?" were varied. Some of them were:

> I can read comic books better. I can read sports better. I do better on the intelligence test in the Daily News. I read the magazines in the library. I stay home more often to read. I type better at home. I can read the letters from my cousin faster. I can spell better. I can talk better. It helps me in my other classes. I can read my homework in English and Social Studies. I take my English and Social Studies more seriously. I get better marks.

Of the total group, 90 per cent said they liked to come to the reading room. Various reasons cited included:

> The room is nice and quiet. The teacher is gentle. You get helped. I feel at home. The books are interesting. You can take home books you like. I don't understand the work in the classroom. I like the different kinds of work we do, the exercises, puzzles, and books.

The 10 per cent who did not like to come to the reading room indicated that they were being deprived of a class which they liked very much; e.g., shop, sewing, science. Others felt that they were missing the work in English or social studies while they were in the reading room and would get low marks. Both these comments indicate problems of scheduling and school coordination rather than lack of effectiveness of the program.

The English teachers cooperated in the evaluation

The English teachers of these 422 children were also asked to evaluate their progress as it was reflected in the classroom. On a parallel questionnaire, the teachers indicated that 86 per cent of these children were able to handle their reading materials better; 69 per cent showed increased interest in reading; 60 per cent seemed to be reading more than they used to; 72 per cent were doing better in regular class work; 70 per cent participated more in class work.

In response to the question, "Have you noticed any other change in his attitude or behavior which may be associated with help in reading?"—47 per cent of the responses were in the affirmative. Some of the changes noted were: general improvement in English work; selection of stories on higher intellectual level; better unit work; improvement in speech; improvement in spelling; better homework marks; work of grade done much more capably; free time spent in classroom, reading instead of talking. Other comments reflected less tangible attitudinal changes: greater interest in all subjects; greater participation, interest, and confidence in class work; pride in improvement; desire to learn; more self-respect; more regular attendance; friendlier attitude; improved conduct; improvement in leadership traits.

There was marked agreement between the responses of the pupils and their English teachers. The teachers of 72 per cent of the children who said they liked reading better indicated that, in the classroom, these children showed increased interest in reading. Of the children who said they were taking part more often in regular classwork, 73 per cent were also judged by their teachers to be showing increased class participation. The teachers of 63 per cent of the pupils confirmed their statement that they were reading more outside the school. The teachers of 86 per cent of the pupils who said that they understood their textbooks better indicated that they were able to read some of their reading materials more readily.

Reactions of other school personnel were obtained

Other subject teachers noticed changes. Teachers of social studies reported improvement in reading; teachers of mathematics reported increased ability to understand textbook problems; a teacher of home economics commented that girls could read recipes better.

Official teachers discovered that truants were coming to school on the days they were scheduled for reading instruction. (Of course, a daily program was arranged for them.) Antisocial children seemed more cooperative in the matter of school routines. Teachers said that children were displaying a more favorable attitude toward school and were more interested in their school work. To some extent the program was helping the school with its discipline problems.

The research staff were also called upon for their reactions

In the opinion of the research staff, the teachers in the program, in general, did an excellent job. Their pupils not only learned to read but benefited from the personal attention of the teachers. To the staff, one of the most important outcomes of the program was its effect on the personality development of the children. While some children required specialized clinical help, for many, individual instruction at the hands of an understanding person was to a large extent the only therapy needed. Special reading instruction was a major factor in solving their problems of school maladjustment.

The greatest failing of the program, according to the research staff, was its lack of coordination with the regular classroom program. Classroom standards conflicted with those in the reading room. In a sense, the popularity of the program with the children reflected this difference. Frustrated with their studies, many looked toward the reading period as the one bright spot of the day.

Even after discharge from the special reading program, children encountered difficulties. Brought up to capacity with reading skills, no longer retarded readers, they still found in their regular classrooms books too difficult, curriculum inappropriate, only one period per week for reading instruction, and little help with their textbooks by the regular subject teachers. The project thus pointed up the need for changes in the classroom program.

In spite of these shortcomings, this evaluation indicates that the out-of-class reading program taught children to read better and helped them improve in attitude and behavior. The project offers substantial evidence that an out-of-class program in the junior high school is of value if adequate facilities and trained personnel are provided.

VII. General Summary and Recommendations

As indicated previously, an appreciable number of pupils now enrolled in junior high schools are estimated to be retarded readers in that their reading ability is below average, not only in relation to their age but also to their capacity to learn. Appropriate testing instruments help to identify such poor readers. The identification of these pupils, however, does not solve the problem of providing for their needs.

In the past, it was not customary to promote children from the elementary schools who failed to meet reading requirements. Therefore, the problem of the retarded reader in the junior high school was not particularly acute. The present policy, however, gives children an opportunity to participate in general school activities appropriate to their social maturity —an opportunity which the retarded reader did not have when he was kept back in the elementary school. As a result of this change in philosophy, reflected in changes in promotion policies, the number of retarded readers enrolled in the junior high school has increased markedly.

To be sure, there are *no more poor readers* of junior high school age today than there were in the past, but *they are now in the junior high school.* Since the junior high school has not yet fully adjusted to its present population, the problem of providing suitable programs of reading instruction for its poor readers has not been met to any great extent.

The difficulties attendant upon implementing an appropriate reading program stem from many sources. The departmentalization of the instructional program so characteristic of the junior high school does not lend itself to the organization of a unified approach to the retarded reader. Moreover, no single plan for grouping pupils for instructional purposes has proved completely satisfactory. Both homogeneous and heterogeneous grouping have their proponents in the schools, and both approaches may be found. The use of reading ability as a basis for grouping has yet to demonstrate its effectiveness as an instructional measure.

Teachers in the junior high school are not yet sufficiently experienced in handling reading instruction on an elementary level, nor are adequate materials for such instruction available in the schools. Large classes, lack of space, insufficient funds for auxiliary services—difficulties which are not peculiar to the junior high school—all tend to interfere with the establishment of a smoothly operating reading program.

1. The Report of the Principals

In order to ascertain the point of view of administrators on the problem of the retarded reader, the principals of all the junior high schools in the city were invited to respond to a questionnaire concerning reading practices in their schools. The responses of the principals to the various items on the questionnaire show how the school is attempting to meet the needs of its elementary grade readers, what the specific problems are, and the number of children whose needs are not being met.[1] According to the principals, the chief administrative means for providing elementary grade readers with appropriate reading instruction is by classifying children within each grade homogeneously on the basis of reading ability (51 per cent). The very poor readers in the school are often placed in special smaller classes with special teachers or in adjustment classes for slow learners (50 per cent). Special programs are sometimes arranged, such as scheduling classes for remedial periods or exchanging children among classes for instruction according to reading level (34 per cent). Sometimes, children within a class are grouped for reading instruction according to level (27 per cent). Individual help is also given. In some schools, it may be added, small out-of-class remedial reading programs are also conducted. (Now in 46 schools.)

Other items of the questionnaire reveal some of the difficulties encountered in organizing the junior high school for reading instruction:

(1) Teachers generally are not prepared to provide instruction at elementary grade levels. Although 97 per cent of the principals were of the opinion that English

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[1] The questionnaire items and the detailed figures for each type of response will be found in the Supplement to Part One.

teachers should be able to do so, only 10 per cent said that they now were prepared. Another 29 per cent said that some teachers were so qualified. Eighty per cent of the principals recommended that appropriate training should be provided for English teachers by remedial reading experts or by specially designated individuals sent to the schools. Some of the respondents suggested that school supervisors be responsible for this training (42 per cent). About half (59 per cent) also recommended courses for teachers, particularly district in-service courses.

(2) Appropriate materials are lacking. The majority of principals (58 per cent) reported an insufficient supply of materials at low reading levels in their schools.

(3) The needs of many elementary grade readers cannot be met in the regular English classroom today. The principals of 23 of the 88 junior high schools reported that in their schools the English teacher in his regular classes could not meet the needs of children reading at fifth and sixth grade levels. In 80 of the 88 junior high schools, according to the principals, the English teacher in his regular classes could not meet the needs of children reading at third and fourth grade levels. Only one principal in the city indicated that in his opinion the needs of the virtual "nonreader" could be met in the regular English classroom.

(4) Grouping methods within the class do not meet the needs of many elementary grade readers. Only 20 per cent of the principals were of the opinion that group methods of instruction within the classroom could meet the needs of both the "retarded readers" and the better readers. About 56 per cent of the respondents felt that the needs of better readers were not met when the class teacher attempted to organize his class in groups for remedial teaching. In fact, these better pupils are actually penalized because emphasis tends to be placed on the remedial group. Another 23 per cent felt that the answer depended on the size of the class, the range of ability in the class, the amount of retardation, and the skill of the teacher. Others doubted that group methods could be worked out adequately in large classes in a departmental program; they recommended that classes be made smaller and the teaching force expanded.

(5) Even small special classes do not suffice with many elementary grade readers. The principals were practically unanimous in their opinion that the needs of the virtual "nonreader" could not be met in regular or special classes; special attention to individual children or small groups outside the classroom would be needed. About half the respondents in whose schools third and fourth grade readers were a problem felt that these children also needed special attention outside the classroom. Some felt the same way about their fifth and sixth grade readers.

(6) Out-of-class remedial services are inadequate. Practically all principals (96 per cent) thought that additional special teachers should be provided to instruct retarded readers in small groups outside the regular classroom. Most principals felt that a new position with special requirements should be established. Many favored a special license for this position, but suggested that until such a licensing procedure is established by the Board of Examiners, capable, interested junior high or elementary school teachers with a mental hygiene point of view should be selected and trained in remedial techniques for immediate service to the schools. Where out-of-class programs had already been established with the assistance of the Bureau of Educational Research, the principals requested the expansion of such services.

(7) Guidance services for retarded readers are difficult to obtain. Principals indicated that psychological service from the Bureau of Child Guidance was extremely limited. Clinics and social agencies treat only a few children, and the others are placed on long waiting lists. Some private clinics are inaccessible and the fees are often prohibitive. The principals recommended the establishment of Board of Education reading clinics either in the individual schools or on a district-wide basis.

(8) Supervisory services in the schools are limited. Principals asked for additional supervisory personnel. Particularly for schools where the reading problem is acute and extensive, they thought that the total reading program, while under the general supervision of the principal, should be the special assignment of an additional assistant-to-principal who would have the assistance of Board of Education specialists outside the school and reading specialists within the school. He would also work with representatives of the subject matter areas.

2. Specific Recommendations

(1) Severely retarded readers should be given special instruction in an out-of-class program

These pupils, because of inadequate and uneven development in reading power, need highly individualized teaching in small groups. They need a teacher who has a thorough mastery of basic reading instruction and is equipped to work with children who may have adjustment problems. A special reading room can provide an atmosphere favorable to the growth of pupils with learning difficulties.

(2) The out-of-class reading program now in existence in selected junior high schools merits expansion

To date 46 extra positions have been created for this work. It is estimated that in one year, each teacher can adequately provide for no more than 75 children at one time. All 75 cannot be instructed at the same time; as some are discharged, others can be taken on. These data give some indication that many more positions are required and that some central organization and supervision will be necessary.

(3) A program designed to train junior high school teachers in methods of teaching reading should be instituted

Junior high school English teachers, and teachers selected for service in any special reading program, need intensive training in methods of teaching reading at elementary school grade levels. In addition, all teachers of junior high school pupils need orientation in the problems of teaching the generally younger children now in the school.

(4) A consistent effort should be made to develop and supply appropriate reading materials

Many of the reading materials now in use are too difficult for children enrolled in junior high school. The number of materials written at low levels of difficulty and of interest to very poor readers in the junior high school is limited. Nevertheless, some appropriate titles do appear on the Board of Education approved textbook list. Many junior high school classes use materials prepared by the teacher and presented in mimeographed form. It appears to be worth while to attempt to systematize the production and distribution of such materials on an organized basis. It is suggested that those divisions and bureaus most intimately concerned with the problem of the retarded reader explore the possibility of setting up a working plan for encouraging the development and dissemination of more appropriate reading materials.

(5) A developmental reading program should be specifically provided in the regular classroom

Basic reading instruction should be an important part of every language arts program. The following should be provided:

Continued instruction for the pupil who has made sufficient progress to be discharged from special reading groups.

Instruction for pupils not sufficiently retarded to be assigned to special groups.

Training for average and above-average readers. Pupils who have achieved a sixth grade reading level should not be presumed to be "finished." Better readers also need instruction if they are to become competent in using many kinds of materials —newspapers, textbooks, reference books, and the like.

(6) The departmentalized program of instruction in the junior high school should be re-evaluated

Departmentalization originally introduced in the seventh and eighth grades, when the majority of children in these grades were thirteen or more years old, merits re-examination in terms of younger children—particularly in the seventh grade, since most eleven- and twelve-year-olds may still need to have only one teacher. It would seem that, in this grade at least, most of the child's day should be spent with one teacher.

It would be well to explore the possibility of modifying school organization to enable teachers to meet fewer classes and to spend more time with them. Allowing teachers more time with a single class might in itself release teacher skills, permit in-class grouping methods, and provide opportunities for fuller use of whatever appropriate materials are available for the elementary grade readers in the class. The "core" program, now being tried out in some schools, seems to favor a more functional approach to reading instruction.

(7) Child guidance services should be expanded so that they are more available for retarded readers

It must be recognized that for some severely retarded readers, clinical help is needed even before reading instruction can start to take effect. Indeed, the reading inefficiency of these children seems trivial compared to their greater problems. As long as behavior is affected by a totality of many internal and external forces, most of them beyond the school's control, there will always be such retarded readers. In order to help such children, additional psychologists, psychiatrists, and social workers are needed. For lack of staff, the Bureau of Child Guidance concentrates its efforts where they are most effective, that is, on the young child in the elementary school. Even there, its service is extremely limited. In recent years, the Bureau has been attempting to treat retarded readers in the upper schools, but only a few can be reached. Health services for retarded readers are also difficult to obtain.

(8) Supervisory services must be extended

Additional supervisory services are needed in all junior high schools where the reading problem is severe, including those schools in which there is a large foreign-language-speaking population. Such supervisors must become acquainted with today's elementary school program; they too need to learn techniques appropriate for younger children. The junior high schools need supervisors who have specialized in the language arts, including the teaching of reading, to advance the reorganization of the language arts program. Supervisors also have a special responsibility with respect to the reading program.

(9) The possibility of formulating a new position for "Teacher of Reading" should be explored

In the questionnaire previously described, 96 per cent of the principals indicated that special teachers should be provided to instruct retarded readers *in small groups outside the regular classroom;* 69 per cent of the principals felt that this should be a new position with special requirements; 40 per cent said further that this position should have a special license. In general, it was felt that the nature of the work to be done called for someone highly qualified by training, experience, and personality.

Supplement to Part One

(A) A Selected List of Tests – Intelligence and Reading Tests

(B) A Questionnaire on Practices Concerned with Retarded Readers in the Junior High School

(C) A Study of Intellectual Capacity and Functioning of Eighty Junior High School Retarded Readers

(A) A Selected List of Standardized Tests

In the following pages will be found a commentary on a selected list of reading and intelligence tests for the purpose of giving information that may be of value to reading teachers. Only those tests are included that were found to be significant to teachers and supervisors in the junior high school project. Therefore, not all test materials appropriate for retarded readers are listed.

The information in the following pages is given for two reasons:

(1) To help teachers interpret test data already noted on pupils' record cards. If correctly interpreted, results of tests given in the primary and elementary grades can help in the understanding of a junior high school pupil. Some scores obtained from city-wide surveys, for instance, are misleading if the teacher does not understand the specific limitations of the particular test used.

(2) To help teachers select appropriate tests for administration to retarded readers, especially those in grades seven and eight.

Section I lists intelligence tests, Section II reading achievement tests, and Section III individual diagnostic reading tests. The statements of factors favoring or limiting use with retarded readers are based on the experience of the Reading Guidance Center during the project. Psychological tests not suitable for the teacher to employ are omitted.

Section I: Intelligence Tests

Name of Test—Publisher—Description Recommended Age Level	Factors Favoring Use with Retarded Readers	Factors Limiting Use of Test
Pintner-Cunningham Primary Test. Forms A and B. World Book Co., Yonkers-on-Hudson. Seven subtests measure several aspects of mental ability. Age: 6 yrs.	Does not require reading. City-wide use in Grade 1 provides intelligence ratings which still have reference value in the junior high school.	Children from foreign homes may be handicapped.
Otis Quick-Scoring Mental Ability Tests—Alpha. Forms A and B. World Book Co., Yonkers-on-Hudson, 1939 edition. Non-Verbal—child works at own tempo for 20 minutes; Verbal—child responds to spoken directions in 5 second timing. Age: 7-8 yrs. A new short form is now available.	Does not require reading or writing. City-wide use in Grade 3 provides intelligence ratings which still have reference value in the junior high school.	Children from foreign homes may be handicapped on the Verbal Test. Not valid at higher grade levels.
Otis Quick-Scoring Mental Ability Tests—Beta. Forms A and B. World Book Co., Yonkers-on-Hudson. This is a verbal, omnibus type test entirely different from the Alpha test. Age: 10-11 yrs.	None.	Suitable only for children with normal reading ability.

Section I: Intelligence Tests (Continued)

Name of Test—Publisher—Description Recommended Age Level	Factors Favoring Use with Retarded Readers	Factors Limiting Use of Test
Chicago Non-Verbal Examination.* Psychological Corporation, New York City. Age: 8-10 yrs.	Does not require reading. Specially planned for testing children with handicaps in the use of the English language.	Preparation of scoring material inconvenient and time-consuming. Low ceiling of test reduces usefulness with adolescents.
Pintner General Ability, Non-Language Series, Intermediate, Forms K and L. World Book Co., Yonkers-on-Hudson. Six subtests which stress visual perception, spatial orientation and reasoning with respect to geometric figures. Age: 11-13 yrs.	Designed to minimize language factors. Does not require reading or writing.	Oral directions are wordy and pantomime directions not acceptable in the school situation.
Pintner General Ability Tests, Verbal Series, Intermediate Test, Forms A and B. World Book Co., Yonkers-on-Hudson. Eight subtests: Vocabulary, Logical Selection, Number Sequence, Best Answer, Classification, Opposites, Analogies, and Arithmetic Reasoning. Age: 11-13 yrs.	None.	Not appropriate for retarded readers when given to pupils with reading scores below fifth grade; intelligence scores obtained should be questioned.
New California Short Form Test of Mental Ability. Elementary, '47, S-Form. California Test Bureau, Los Angeles. Three tests depend on reading and four do not. Separate intelligence scores may be obtained on Language, Non-Language and Total Mental Factors. Age: 11-12 yrs. (See also 1950 Edition.)	Comparison of results of Non-Language and Language sections may indicate whether child is working below potential capacity.	Testing requires time and skill on the part of examiner and assistant.
California Intelligence Test. Non-Language Section. Intermediate Series, 1946 Edition. California Test Bureau, Los Angeles. Contains three pretests of visual acuity, auditory acuity and motor coordination and nine subtests grouped under memory, spatial relationships, logical reasoning and numerical reasoning. Age: 13-14 yrs. (See also 1951 Edition.)	Does not require reading. Though the intellectual functions measured are not identical with those included in verbal intelligence tests, the test has generally high validity.	Directions long and complicated. Administration and scoring time-consuming.
SRA Non-Verbal, Form AH.* Science Research Associates, Chicago. Multiple-choice marking of pictures and designs. Many kinds of experience and mental functioning involved in test items. Age: 12 yrs. to adult.	Easily administered and scored. Directions on cover page may be read to pupils. Retarded readers interested and responsive. Has served to screen out retarded readers with higher potentialities.	May be too short for high reliability. Results should be considered in light of other data. No norms are provided for children below age 12. May penalize both overcautious children and those with slow eye-hand coordination; may favor those with ability in drawing.

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* Not listed on Board of Education Textbook List.

Section II: Reading Achievement Tests

Name of Test—Publisher—Description Recommended Reading Level	Factors Favoring Use with Retarded Readers	Factors Limiting Use of Test
Los Angeles Primary Reading Tests,* Forms I, II, III, and IV. California Test Bureau, Los Angeles. A single folded sheet (24 items) which calls for different kinds of reading and response. Reading Level: 2-3.	A quick rough measure of reading achievement. Format clear and content varied.	Time limit may be short for high reliability. Should be followed by more detailed testing at the grade level indicated.
Gates Advanced Primary Reading Tests, Forms 1, 2, and 3. Bureau of Publications, Teachers College, Columbia University, New York City. Type 1, Word Recognition. Type 2, Paragraph Reading. Reading Level: 3.	The Manual of Directions gives many suggestions for diagnosis and instruction. Has generous time allowances.	Frequently used in early grades.
New York Tests of Growth in Reading, Test B, Form 1. Board of Education of the City of New York. Three tests: Sentence Meaning, Vocabulary and Paragraph Meaning. Reading Level: 2-3.	No grade designation. Accuracy rating provides a check on the reliability of the grade score and reveals data about the pupil's work habits.	Only one form of test is available at present.
New York Tests of Growth in Reading, Test C, Form 1. Board of Education of the City of New York. Eight stories of increasing difficulty; measures various aspects of reading comprehension and vocabulary in context. Reading Level: 3-5.	The accuracy rating provides a check on the reliability of the grade score and reveals data about the pupil's work habits. Useful in selecting 7th grade pupils for the junior high school special reading program.	Only one form of test is available at present. Short time limit may not be sufficient for the older retarded reader who has gained power but lacks speed.
New York Tests of Growth in Reading, Test D, Form 1. Board of Education of the City of New York. A continuous story; measures the same phases of reading comprehension as Test C. Reading Level: 5-6.	Useful in selecting less severely retarded readers and in measuring progress of those originally tested with Test C. Time limit more adequate than that of Test C.	Only one form of test is available at present.
Metropolitan Achievement Tests, Elementary Reading Test, Forms R, S, T. World Book Co., Yonkers-on-Hudson. Test 1, Reading (mainly of paragraphs). Test 2, Vocabulary. Reading Level: 4.	Well graded from very easy to hard reading with bulk of material at about fourth grade difficulty. Clear format. Easy administration and scoring.	No provision is made for correcting scores for chance marking of items. Hence booklets must be inspected to determine significance of very low scores.
Metropolitan Achievement Tests, Intermediate Reading Test, Forms R, S, T. World Book Co., Yonkers-on-Hudson. Test 1, Reading (paragraphs). Test 2, Vocabulary. Reading Level: 5-7.	Used for city-wide survey in Grade 6 and hence provides data for first screening of 7th graders for reading program. Valuable for measuring exceptional progress of certain children.	Too difficult for extensive use in the reading program.
Gates Basic Reading Tests, Forms 1, 2, 3, and 4. Bureau of Publications, Teachers College, Columbia University, New York City. Four types of comprehension tests: A, B, C, D; each measures speed and accuracy. Reading Level: High 4-6.	Format convenient and clear. Can be administered in one hour. Any one type may be given independently. Grade, age and accuracy scores available for each type.	Short time allowances limit diagnostic value.

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* Not listed on Board of Education Textbook List.

Section II: Reading Achievement Tests (Continued)

Name of Test—Publisher—Description Recommended Reading Level	Factors Favoring Use with Retarded Readers	Factors Limiting Use of Test
Stanford Achievement Test, Intermediate Reading Test, Forms D, E, F, G. World Book Co., Yonkers-on-Hudson. Test 1, Paragraph Meaning. Test 2, Word Meaning. Reading Level: 5-7.	Administration easy. Format clear. Time allowance adequate. May be used to measure progress of the more advanced pupils in the reading program.	Scoring of Test 1 difficult and somewhat subjective. Besides reading comprehension, Test 1 depends upon general language development and is affected by speed of writing. Test does not have a low enough "floor" to measure adequately many retarded readers.
Gates Reading Survey, Forms I and II. Bureau of Publications, Teachers College, Columbia University, New York City. Three parts: Vocabulary, Comprehension, and Speed. Reading Level: 5-8.	Vocabulary and comprehension tests have no fixed time limits. Grade, age, and accuracy scores available. Useful for follow-up of pupils discharged from reading program.	Considerable time is required for administration of this test.
Stanford Achievement Test, Advanced Reading Test. Forms D, E, F, G. World Book Co., Yonkers-on-Hudson. Test 1, Paragraph Meaning. Test 2, Word Meaning. Reading Level: 7-9.	None.	Does not have a low enough "floor" to measure adequately many retarded readers in the junior high school.

Section III: Individual Diagnostic Reading Tests

Name of Test—Publisher—Description Recommended Reading Level	Factors Favoring Use with Retarded Readers	Factors Limiting Use of Test
Gates Reading Diagnostic Tests,* Forms I and II. Bureau of Publications, Teachers College, Columbia University, 1945 Edition. A complete systematic analysis of reading difficulties by means of an individual technique which is largely oral.	Excellent format of pupils' test booklets. Check list of difficulties carefully organized. Grade norms for various skills. A valuable experience for a reading teacher when used with a few individuals.	Time consuming and impractical for general use.
Gray Oral Reading Check Tests. Forms 1, 2, 3, 4, and 5. Public School Publishing Co., Bloomington, Illinois. Tests include passages at the following levels of difficulty: Set I—First Grade. Set II—Second and Third Grade. Set III—Fourth and Fifth Grade. Set IV—Sixth, Seventh, and Eighth Grade.	Parallel forms uniform in length and difficulty in each set. Convenient and inexpensive format advantageous for frequent retesting. Teacher may disregard rate of reading.	No provision for analyzing and summarizing errors, such as reversals.
Durrell Analysis of Reading Difficulty. World Book Co., Yonkers-on-Hudson. Analyzes oral and silent reading; includes measures of comprehension and recall.	Check list of difficulties carefully organized. Attractive format. Grade norms for various skills.	Time consuming and impractical to use except in a clinic situation.

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* Not listed on Board of Education Textbook List.

(B) Questionnaire on Practices Concerned with Retarded Readers in the Junior High School

Summary of Responses of 88 Junior High School Principals — May 1950

1. To What Extent Is The "Retarded Reader" A Problem In Your School? (Check)

	No. of Responses	Per Cent of Total
Practically no problem	1	1%
Mild problem	34	39%
Severe problem	53	60%

2. To What Extent Are Instructional Materials Available For Retarded Readers In Your School? (Check)

	No. of Responses	Per Cent of Total
Entirely lacking	0	—
Very few	51	58%
Sufficient	37	42%

3. Do You Think That The Problem Of The Retarded Reader In The Junior High School Is Greater Today Than It Was Ten Years Ago? If So, To What Factors Do You Attribute The Situation?

	No. of Responses	Per Cent of Total
Yes	62	70%
No	16	18%
Probably	5	6%
Not answered	5	6%
1. School promotional policies	48	55%
2. Increase in number of children with foreign language background and shift in socio-economic level of the population within the school.	46	52%
3. Appeal of television, radio, movies, comics.	24	27%
4. Unsuccessful association with reading in elementary school	21	24%

4. Do You Think That The Junior High School Should Provide Regular Classroom Instruction In Elementary Basic Reading Skills?

	No. of Responses	Per Cent of Total
Yes	79	90%
No	7	8%
Not all	1	1%
Not answered	1	1%

Should Junior High School English Teachers Be Able To Teach The Elementary Basic Reading Skills?

	No. of Responses	Per Cent of Total
Yes	85	97%
No	2	2%
Not answered	1	1%

Are They Equipped To Do So Now?

	No. of Responses	Per Cent of Total
Yes	9	10%
No	53	60%
Not all	25	29%
Not answered	1	1%

If Not (Equipped To Do So Now), Who Should Train Them?

	No. of Responses	Per Cent of Total
1. Remedial reading experts or specially designated individuals sent to the schools.	70	80%
2. School supervisors within the schools.	37	42%

52 principals (59 per cent) also recommended courses for teachers, particularly in-service district courses.

5. Are There Ways Of Modifying The Organization Within A School So As To Help Meet The Needs Of Children Of Varying Reading Ability? If So, What Are They?

	No. of Responses	Per Cent of Total
1. Organizing classes homogeneously with respect to reading ability.	45	51%
2. Placing slow readers in special classes or in adjustment classes for slow learners.	44	50%
3. Special programming, such as scheduling classes for special remedial reading periods or inter-class exchange of pupils for reading instruction according to reading level.	30	34%
4. Grouping within the classroom.	24	27%

6. Can The English Teacher In Her Regular Classes Meet The Needs Of:

A. Children Reading At Fifth And Sixth Grade Levels?

	No. of Responses	Per Cent of Total
Yes	65	74%
No	23	26%

B. Children Reading At Third And Fourth Grade Levels?

	No. of Responses	Per Cent of Total
Yes	8	9%
No	80	91%

C. Children Who Are Virtually "Non-Readers"?

	No. of Responses	Per Cent of Total
Yes	1	1%
No	87	99%

(For Each Of The Above Groups) If So, How? If Not, What Other Means Does The School Have To Provide Reading Instruction For These Children Except In Small Groups Outside The Regular Classroom?

Summary of Responses of 88 Junior High School Principals—May 1950
(Continued)

In the opinion of about three quarters of the principals, the English teacher in her regular classes can meet the needs of children reading at fifth and sixth grade levels. Almost all the principals agreed that the needs of children reading below fifth grade level could not be met by the English teacher in her regular classes.

With respect to third and fourth grade readers, about half the principals considered small out-of-class groups the only method of providing instruction for these children. The other half indicated that the school may organize homogeneous classes, special classes with special teachers, or make special programs in order to help provide reading instruction for these children. Almost all principals agreed that the needs of children who are virtually nonreaders could be met only individually or in small groups outside the classroom.

7. If It Can Be Arranged So That The Retarded Readers Receive The Necessary Remedial Instruction Within The Regular Classroom, Are The Better Readers In These Classes Receiving The Type And Amount Of Instruction They Should Have?

	No. of Responses	Per Cent of Total
1. Yes	18	20%
2. No	49	56%
3. Maybe; the answer depends on: the size of the class the range of ability in the class the amount of retardation the skill of the teacher	20	23%
4. No answer	1	1%

8. If Arrangements Could Be Made In Your School For Small Group Remedial Instruction For A Limited Number Of Periods Per Week, Which Groups Of Pupils Or Types Of Pupils Would You Select For This Special Instruction (In Order Of Preference)?

    1. 31 principals (35 per cent) limited their first choice to children of at least normal intelligence.
    2. 20 (23 per cent) specifically listed "nonreaders" first, but 13 (15 per cent) specifically placed them last.
    3. 12 (14 per cent) placed children with emotional problems low or last in order of preference or would exclude them; 3 (3 per cent) placed them first.
    4. 12 (14 per cent) placed foreign-speaking children high in order of preference; 6 (7 per cent) placed them low or last or would exclude them.
    5. 7 (8 per cent) recommended starting with seventh grade pupils.

9. Do You Think That Additional Special Teachers Should Be Provided To Instruct Retarded Readers In Small Groups Outside The Regular Classroom?

	No. of Responses	Per Cent of Total
Yes	84	96%
No	3	3%
Don't know	1	1%

If So, Should This Be A New Position With Special Requirements? Special License? Other Suggestions?

	No. of Responses	Per Cent of Total
New position	58	69%
New position with special license	34	40%
No new position necessary	25	30%
Uncertain	1	1%

10. To What Extent Does Your School Receive Service From Child Guidance Clinics And Social Agencies For Help With Severely Retarded Readers?

	No. of Responses	Per Cent of Total
No service	26	30%
Practically no service	20	23%
Very limited service	38	43%
Adequate service	3	3%
No answer	1	1%

11. In A School Where The Reading Problem Is Acute And Extensive, How Should The Supervision Of The Total Reading Program Be Arranged?

The responses to this question were varied but the most common response was that the total reading program, while under the general supervision of the principal, should be the special assignment of a selected assistant-to-principal or an additional assistant-to-principal who should be in charge of the program in all the junior high school grades. He should have the assistance of Board of Education specialists outside the school and reading specialists within the school. He should also work with representatives of the subject-matter areas.

(C) A Study of Intellectual Capacity and Functioning of Eighty Junior High School Retarded Readers

Retarded readers of junior high school age are frequently misjudged as being of lower intelligence than is the case. This error results partly from the fact that ability to learn the fundamental school subjects is popularly thought of as synonymous with intellectual capacity. Moreover, retarded readers of this age group almost invariably score low on group tests of intelligence, due to the inclusion in these tests of a high percentage of verbal material and directions needing to be read. As has been indicated elsewhere in this bulletin,[1] parents, teachers, other children, and the retarded readers themselves tend to underrate the ability of the child with reading difficulty. It seems important, therefore, to present a summary of data obtained relative to the intellectual capacity of retarded readers in the junior high schools.

The present report summarizes intelligence findings for eighty children studied individually as consecutive cases by a psychologist from the Bureau of Educational Research. Included in this group are 58 boys and 22 girls from six junior high schools in which the psychologist worked for a limited time. Most of the children (56) were in the seventh grade at the time of the study; 23 were in the eighth grade and one was in the ninth. They are considered typical of junior high school pupils with severe reading difficulties. Most of them were referred to the psychologist by their reading teachers, who wished to obtain a clearer understanding of their abilities as well as the nature of their problems. Since the teachers also wanted some assistance in the guidance of these children, the psychological studies were not limited to the measurement of intellectual capacity. Various personality tests and interview techniques were used in order to explore the children's problems and background experiences. The general conclusions from these studies have been discussed in Chapter Two. An analysis of the data resulting from the administration of individual intelligence tests is presented in this Supplement.

The scale used was the Wechsler-Bellevue Intelligence Scale, Form I.[2] This series of tests is especially appropriate for children of this age group who have reading problems because it includes five performance tests as well as five verbal tests. Though the title of Wechsler's book suggests that these tests are for use only with adults, the scales are appropriate for the examination of adolescents also, and norms are given by Wechsler for children as young as ten years. All ten tests of the Full Scale were given to these 80 pupils. The results of the Vocabulary Test, a supplementary verbal test frequently used but not included in the total score from which the IQ's are calculated, are not given here because they were not available for all cases. The nature of the ten individual subtests will be described later.

Table I gives a distribution of the chronological ages of these pupils by grade and sex groups. It will be observed that only a few of these children were overage for their grades and that approximately ten per cent were quite young, being still under twelve years. In general, the eighty children comprise a group which is fairly homogeneous as to age and may be described as being in the early adolescent years. Since the pupils were examined throughout the school year, this table gives only a rough indication of the children's age-grade status. The medians for the subgroups containing 22 or more cases are given in the table. It will be noted that the median age at the time of examination of the total group of 80 cases was 12 years and 9 months. There was only one month's difference between the median age of boys and girls. The eighth graders, with a median age of 13 years and 5 months, were ten months older than the seventh graders at the time of examination.

Table I—Chronological Age Distribution by School Grade and Sex of Eighty Retarded Readers Examined with Wechsler-Bellevue Scale of Intelligence

Range of Ages in Years and Months	Eighth Grade			Seventh Grade			Total Group		
	B.	G.	T.	B.	G.	T.	B.	G.	T.
15-6 – 15-11	–	–	–	1	–	1	1	–	1
15-0 – 15-5	–	–	–	–	–	–	–	–	–
14-6 – 14-11	2	–	2	–	–	–	3*	–	3*
14-0 – 14-5	2	2	4	2	–	2	4	2	6
13-6 – 13-11	4	1	5	2	3	5	6	4	10
13-0 – 13-5	1	2	3	6	1	7	7	3	10
12-6 – 12-11	5	3	8	11	5	16	16	8	24
12-0 – 12-5	1	–	1	14	2	16	15	2	17
11-6 – 11-11	–	–	–	5	3	8	5	3	8
11-0 – 11-5	–	–	–	1	–	1	1	–	1
Totals	15	8	23	42	14	56	58*	22	80*
Medians for Total Groups			13-5			12-7	12-9	12-10	12-9

* One ninth grade boy, aged 14-7, is included in the distribution of the total group.

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[1] Compare Chapter Two.

[2] Wechsler, David. *The Measurement of Adult Intelligence.* Third Edition. Baltimore: The Williams and Wilkins Company, 1944.

For purposes of further general description of this group of children, data are given in Table II as to the approximate reading grades at which they were working when examined. Since reading tests were not often given at the same time when individual psychological studies were made, some of these reading grades were estimated by the psychologist on the basis of test results available before and after the date of the individual study. Various reading tests appropriate to the individual's reading growth at the time were used.

Table II—Approximate Reading Grades of Eighty Retarded Readers at the Time of Individual Psychological Examination

	Boys	Girls	Total
Sixth grade	6	3	9
Fifth grade	9	8	17
Fourth grade	9	7	16
Third grade	11	1	12
Below third grade but with some reading skills	11	3	14
"Nonreaders"	12	–	12
Total	58	22	80

On the Wechsler-Bellevue Scale, three IQ scores are obtainable—on the Verbal Scale, the Performance Scale, and the Full Scale. The Full Scale presumably gives the most valid measure in most cases. IQ's obtained on the Full Scale for the 80 children are summarized in Table III. The IQ categories and classifications listed are those suggested by Wechsler in a summary of his standardization data.[3]

Table III—Distribution of IQ's Obtained on the Wechsler-Bellevue Intelligence Examination, Full Scale, for Eighty Retarded Readers Compared with Wechsler's Standardization Data

Classification	IQ Limits	80 Retarded Readers Number B.	G.	T.	Per Cent Total	Wechsler's Population Per Cent
Very Superior	128 and over	–	1	1	1.3	2.2
Superior	120 – 127	–	1	1	1.3	6.7
Bright Normal	111 – 119	4	1	5	6.3	16.1
Average	91 – 110	37	15	52	65.0	50.0
Dull Normal	80 – 90	16	3	19	23.7	16.1
Borderline	66 – 79	1	1	2	2.5	6.7
Mental Defective	65 and below	–	–	–	0.0	2.2
	Total	58	22	80	100.1	100.0
Mean IQ—Boys		96.7				
Girls			97.2			
Total				96.8		

Table III affords a direct comparison of the percentage distribution of the intelligence quotients of the retarded readers with Wechsler's sampling of the general population. It will be noted that retarded readers are in all intelligence categories except the "defective." This is not to deny that there are retarded readers among high-grade mentally defective children, but such children were eliminated from the junior high school special reading groups because other provisions—placement in CRMD or CRMD Adjustment Classes—were considered to be more appropriate for them. The most interesting finding here is that so large a percentage of the retarded readers is in the "average" category—that is, 65 per cent, in contrast to only 50 per cent of the general population. However, while only seven of the retarded readers obtained IQ's above 110 (approximately 9 per cent), the general population according to Wechsler includes 25 per cent in those highest intelligence groups. In the lower ranges of IQ, the retarded readers have almost eight per cent more cases in the "dull normal" category but four per cent fewer in the "borderline" group. The mean IQ's on the Full Scale of both boys and girls are approximately three points below 100. In summation, it may be stated that 95 per cent of the retarded readers are in the "bright normal," "average," and "dull normal" categories. Far from being a group of mentally retarded children, they may be described as being of predominantly average general intelligence.

In Table IV the intelligence test results are shown in more detail. Using the same IQ limits for Wechsler's seven intelligence categories, obtained IQ's on the Verbal Scale and the Performance Scale are given separately for boys and girls and for the total group. Percentage distributions of IQ's for the total group on both the Verbal Scale and the Performance Scale make possible further comparisons with Wechsler's data. It will be noted that the retarded readers more nearly approximate Wechsler's population norms when measured with performance tests than when

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[3] Wechsler, *op. cit.*, pp. 40, 190.

Table IV–A Comparison of Verbal and Performance IQ's of Eighty Retarded Readers According to the Wechsler-Bellevue Scales

Intelligence Classification	IQ Limits	Data for 80 Retarded Readers								Wechsler's Population
		Verbal Scale				Performance Scale				
		B.	G.	T.	%	B.	G.	T.	%	%
Very Superior	128 and over	–	–	–	–	1	1	2	2.5	2.2
Superior	120 – 127	–	1	1	1.3	1	3	4	5.0	6.7
Bright Normal	111 – 119	3	1	4	5.0	15	4	19	23.8	16.1
Average	91 – 110	25	9	34	42.4	30	11	41	51.2	50.0
Dull Normal	80 – 90	19	7	26	32.5	10	2	12	15.0	16.1
Borderline	66 – 79	11	4	15	18.8	1	1	2	2.5	6.7
Mental Defective	65 and below	–	–	–	–	–	–	–	–	2.2
	Total	58	22	80	100.0	58	22	80	100.0	100.0
Mean IQ – Boys		91.0				102.3				
Girls			91.3				104.7			
Total				91.1				103.0		

measured with verbal tests. Both boys and girls score higher on the Performance than on the Verbal Scale. The differences between the boys' means on the two scales is 11.3 IQ points and between the girls' means is 13.4. Since these group differences are large and statistically significant, it may be stated that poor readers in the junior high schools usually function better on the Performance than on the Verbal Scale of the Wechsler Examination.

Though this finding of a difference in the two scales is accepted as accurate and though a similar finding may be expected when other verbal and performance scales are administered, it cannot be assumed that retarded readers suffer from a general language deficiency; nor is it necessarily true that the greater the verbal requirement a test makes, the greater is its difficulty for the retarded reader. The results for the 80 children on the subtests of the Wechsler Scale provide evidence of differential functioning which is not explainable merely on the basis of the varied requirements of these tests for the understanding and use of language.

In order to provide background for a discussion of these findings, a brief description of the tests of the Verbal Scale is given as follows:

(1) *Information.* This test of range of information according to Wechsler[4] has proved to be one of the most satisfactory of the battery of tests and it correlates second best with total score. However, the test presupposes that subjects have had normal opportunity to acquire verbal information. The test seems to reveal the degree of alertness of the person toward the world about him.

(2) *Comprehension.* "Success on the test seemingly depends on the possession of a certain amount of practical information and a general ability to evaluate past experience."[5] Also, ". . . poor verbalizers and those unaccustomed to setting forth their ideas in words often make low scores on the test."

(3) *Memory Span for Digits.* Though this test of ability to remember and repeat digits in both the forwards and backwards order does not correlate highly with total score, it has been found to be a valuable test for measuring the lower levels of ability. It is a test not only of memory but of the ability to concentrate attention on a task. The test has added clinical value in pointing to the presence of memory defects which may be typical of certain organic defects. Low scores may also reflect anxiety.

(4) *Arithmetic Reasoning.* According to Wechsler this test has been "devised so as to avoid verbalization and reading difficulties." It requires close attention and mental effort and is admittedly related somewhat to scholastic achievement. However, it has a satisfactory correlation with total score and is considered to be a good measure of intelligence.

(5) *Similarities Test.* "Among the best of our entire battery" is Wechsler's comment on this test, which he also states is relatively free of linguistic difficulties at the higher levels. The test has value because it correlates highly with total score and throws light on the quality of the logical processes utilized by the subject in making comparisons between objects or ideas.

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[4] WECHSLER, *op. cit.*, p. 77 ff.

[5] *Ibid.*

Table V—Subtest Scores on the Verbal Scale of Eighty Retarded Readers Compared With Wechsler's Standardization Data for Twelve- and Thirteen-Year-Olds

Mean Weighted Scores

Subtests of the Verbal Scale	Retarded Readers			Wechsler's Data	
	Boys N-58	Girls N-22	Total N-80	Twelve-Year-Olds N-60	Thirteen-Year-Olds N-70
Information	5.8	6.2	5.9	9.8	9.9
Comprehension	9.3	8.8	9.2	8.6	9.0
Digit Span	6.4	7.0	6.6	7.9	9.1
Arithmetic	6.2	5.6	6.0	8.1	8.8
Similarities	7.6	8.0	7.8	8.8	9.3

Table V gives the mean weighted scores on the five tests of the Verbal Scale for the 80 retarded readers. Data for boys, girls and the total group are shown, as are comparable figures for Wechsler's standardization groups of 60 twelve-year-olds and 70 thirteen-year-olds. First, it may be advisable to study the results obtained by Wechsler. For the twelve-year-olds, scores range from a low of 7.9 on Memory Span for Digits to a high score of 9.8 on Information, a total difference of 1.9 score points. The mean scores on these subtests for the thirteen-year-olds have a range of only 1.1, with the lowest score occurring on Arithmetic (8.8) and the highest again on Information. For both age groups taken together there is a total range of scores on these verbal subtests of only two points.

With the retarded readers, scores are much more variable on the five tests, from 5.9 to 9.2, a difference of 3.3 points. This greater inter-test variability is not explainable as due to a small sample, since the group of retarded readers is, in fact, larger than Wechsler's age categories, with which it is compared. Moreover, the results for boys and girls show differences between means which do not exceed .6 for any subtest. With the exception that the Arithmetic Test is in lowest place for the girls and the Information Test in next to the lowest, whereas with the boys this order is reversed, all other verbal tests have the same order of difficulty for both sexes. Scores on the Comprehension Test are much the highest and scores on Information and Arithmetic are close together, contesting for lowest place. Memory Span for Digits follows with only a slightly higher score. In an intermediate position for both sexes and the total group is the Similarities Test. The score of 7.8 for the total group is one point below Wechsler's norm for twelve-year-olds; but this is not a large difference and is well within the normal range.

Since both the Comprehension and the Similarities Tests are described by Wechsler and are also generally known to be important measures of intellectual capacity, and since they also require a more discriminating use of language than do any other of the tests of the Scale, it appears that this group of retarded readers is not conspicuously deficient in a general language factor. In ability to express judgments relative to social or common-sense situations (the Comprehension Test), they are here shown to equal or exceed the norms for their age groups. In the concept formation which is essential for pointing out relationships between objects and ideas (the Similarities Test), the retarded readers do not quite equal the average child of their age. That this score is only slightly below can be seen by the fact that if a Verbal IQ were based on this Similarities Test alone, the average for the retarded readers would be 96.

If generally deficient language powers cannot be ascribed to the retarded readers, the question remains as to what explanatory factors lie behind their low scores on the Information, Arithmetic, and Memory Span for Digits Tests. As to the Information Test, it may be thought that the failures of the retarded readers on these questions are the natural result of their restricted learning environment, since they are not able to use printed material for acquiring information—in newspapers, magazines, books, or even on signs and labels, as does the normal reader. On the other hand, it has been observed that the poverty of their knowledge of commonly used information, and especially of number facts, was so great that lack of reading ability could not very well serve as the sole cause. Rather, the suggestion that failure with this test reveals the person who lacks alertness towards the world about him seems to apply to the retarded reader. The information required belongs in the category of objective factual data, concerning which the retarded reader has below average curiosity and interest. He is immature in that, while he is revealed as capable of reasoning in practical social situations, he is not alert to items which have no essential concern for him. He is still a young child struggling unsuccessfully with problems of his status with his parents and with his competition with brothers and sisters—problems which the well-adjusted adolescent of his age begins to feel less pressing. The retarded reader, because he is troubled by very real personal difficulties as well as imagined childish fears, lacks confidence even in his ability to adjust in his small world of home and school. The larger community of nation and world he tends to shut out because he cannot imagine himself happily—as the normal adolescent does—in an adult role.[6]

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[6] Conclusions based upon the data obtained from projective tests and interviews of retarded readers.

The retarded reader's intellectual powers, because of the narrowness of his emotional life, are seldom aroused to optimum functioning. His intellect may be stirred, however, by tests which have pictorial interest and a puzzle-game character, such as characterize the Picture Arrangement, Picture Completion, and Object Assembly Tests of the Performance Scale. To tests requiring immediate concentrated effort on learning something abstract or formal, or to tests providing no immediate satisfaction in their completion, he is characteristically indifferent and lacking in alertness. This unwillingness, perhaps rather than inability to attend and to put forth effort to learn, may account also for the retarded readers' very poor showing on the Arithmetic Reasoning Test and on the Digit Memory Test. Poor response on the latter has also been found to be associated with the operation of anxiety,[7] which is present to an unusual degree in many of these children.

Table VI shows the mean weighted scores of the retarded readers on the five tests of the Performance Scale and the comparable normative data provided by Wechsler for twelve- and for thirteen-year-olds. Here again the variability of the retarded reader is apparent, but in the case of the performance tests, there is only one test which is much below the norms (Digit Symbol). On the other hand, in two tests both the boys' and girls' groups as well as the total group definitely exceed Wechsler's norms; that is, on the Picture Completion and Picture Arrangement Tests.

Table VI—Subtest Scores on the Performance Scale of Eighty Retarded Readers
Compared with Wechsler's Standardization Data for
Twelve- and Thirteen-Year-Olds

Mean Weighted Scores

Subtests of the Performance Scale	Retarded Readers Boys N-58	 Girls N-22	 Total N-80	Wechsler's Data Twelve-Year-Olds N-60	 Thirteen-Year-Olds N-70
Picture Arrangement	9.7	10.9	10.0	9.2	9.3
Picture Completion	11.0	9.3	10.6	7.3	8.7
Block Design	8.5	8.5	8.5	9.1	10.1
Object Assembly	9.3	9.7	9.4	9.6	10.2
Digit Symbol	7.1	8.6	7.5	9.2	10.1

The five tests of the Performance Scale are briefly described as follows:

(1) *Picture Arrangement.* This disarranged sentence test requires the subject to put the pieces into the right order so that they tell a sensible story. Wechsler states that the test effectively measures ability to comprehend and size up a total situation involving human or practical affairs.

(2) *Picture Completion.* Here the subject must discover and name an essential missing part of pictures shown. According to Wechsler, it is the second best test of the performance series and "measures the individual's basic perceptual and conceptual abilities in so far as these are involved in the visual recognition and identification of familiar objects and forms."

(3) *Block Design.* This is a modification of Koh's original test which he considered to be a comprehensive measure of non-verbal intelligence. Wechsler states that it is the best single test in his performance scale. It requires the individual to analyze the whole (of the design) into its component parts and then to synthesize it again in the process of reproducing the pattern with blocks. Disturbances of perception and of motor control may be observed in the subject's work on this test.

(4) *Object Assembly.* Included in this test are three formboards of a Manikin, a Feature Profile, and a Hand, which the subject must assemble. Though the test's correlations with other subtests and the total are rather low, the test makes some statistical contribution to the whole scale. It also is valuable as a means of observing characteristic working habits of the subject in a problem-solving situation.

(5) *Digit Symbol.* The subject is required here to associate certain symbols with certain other symbols and to substitute these by a pencil-and-paper method. The speed and accuracy with which he performs this learning task give the measure of his intellectual ability. This test also depends upon visual-motor coordination.

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[7] Moldawsky, Stanley and Moldawsky, Patricia C. "Digit Span as an Anxiety Indicator." *Journal of Consulting Psychology,* 16: 115-18, April 1952.

The weaknesses and strengths shown by the poor readers on the Performance Scale are consistent with the results of the Verbal Scale. Their poorest work is on a learning test which requires close attention and concentrated effort upon a school-like task. The ineptness of the retarded reader's response to this test again suggests his resistance rather than his inability to do the task. Though with the block and pictures tests he is responsive to the speed factor, here he often seems completely indifferent to the need to organize himself for speed. Though there are occasional evidences of directional difficulty in making the reversed "N" symbol, it is usually slow work rather than inaccurate work which accounts for low scores. The outstanding failures of retarded readers on this test and the low averages for both boys and girls confirm the findings of a similar study by Graham[8] published after this manuscript went to press.

Reference to Table VI reveals that the important Block Design Test is in the second lowest position among performance test scores of the retarded readers. Here, however, the deviation from the norms is not large enough to suggest the presence of a consistent disability. Rather, this slightly lower than average score probably reflects the retarded reader's intellectual capacity with fair accuracy. The study of a generally younger group of retarded readers reported by Safrin[9] found that on the Block Design Test of the Cornell-Coxe Performance Ability Scale, these children had definite difficulty. Partly because of this clear finding from Safrin's careful study, account has also been taken in the present study of the relative position of the Block Design Test for the eighty individual children.

Summarizing the outstanding results of these ten tests of the Wechsler-Bellevue Scale with retarded readers, the statements that follow are based on the data reported above. Based roughly on the frequency and specificity of each finding, score values of 1 or 2 have been assigned to each condition. This plan makes possible a scoring of each retarded reader's test results to show the extent to which they conform to the pattern of Wechsler test scores that has been found to be characteristic of retarded readers. A summary is shown which gives these data and score values.

Characteristic	Number and Percentage of Retarded Readers Having Each Characteristic				Score Value
	Boys	Girls	Total	%	
The IQ on the Performance Scale is higher by 10 or more points than the IQ on the Verbal Scale.	31	14	45	56	1
The weighted score on the Information Test is lower by 2 or more points than the score on the Comprehension Test.	45	13	58	73	2
The Memory Span for Digits score is 2 or more points lower than the mean of all ten weighted scores.	31	12	43	54	1
The Arithmetic Test score is 2 or more points lower than the mean of all ten weighted scores.	24	13	37	46	1
The Digit Symbol Test weighted score is the lowest of the performance tests or is tied for the lowest position.	30	6	36	45	2
The Block Design Test is either in lowest or next to lowest position among performance tests.	32	15	47	59	1

It will be seen that this more or less arbitrary scoring method yields a possible maximum of 8 points. Table VII shows the distribution of these score values. Both the mode and median fall in the interval of 4 points.

Table VII—Distribution of Score Values Based on Characteristic Test Results of Retarded Readers on the Wechsler-Bellevue Full Scale

Score Values	Eighty Retarded Readers		
	Boys	Girls	Total Group
8	6	2	8
7	8	3	11
6	7	3	10
5	5	3	8
4	15	2	17
3	7	2	9
2	6	3	9
1	2	3	5
0	2	1	3
Total	58	22	80

In order to determine if any relationship exists between the score value and the severity of the reading retardation for each pupil, the average score values for the children in each reading grade category were found. These averages are listed in Table VIII.

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[8] GRAHAM, E. ELLIS. "Wechler-Bellevue and WISC Scattergrams of Unsuccessful Readers." *Journal of Consulting Psychology,* 16:268-71, August 1952.

[9] SAFRIN, RENATE. *An Analysis of the Performance of a Group of Reading Disability Cases on the Subtests of the Cornell-Coxe Performance Ability Scale.* Thesis for Master of Science in Education. School of Education, College of the City of New York, June 1947.

Table VIII—Average Score Values for Pupils Grouped According to Reading Grades[10]

	Boys		Girls		Total	
Approximate Reading Grades	No.	Aver. Score	No.	Aver. Score	No.	Aver. Score
Sixth grade	6	2.7	3	2.8	9	2.8
Fifth grade	9	4.2	8	3.7	17	3.7
Fourth grade	9	4.0	7	5.1	16	4.5
Third grade	11	4.9	1	4.0	12	4.8
Below third but with some reading skills	11	4.8	3	5.1	14	5.1
"Nonreaders"	12	5.8	–	–	12	5.8

It will be seen from Table VIII that there is a fairly consistent negative relationship between these score values and reading achievement. It would appear, therefore, that a characteristic pattern of functioning on the Wechsler-Bellevue Scale can be described with reference to retarded readers of this age group. These findings were checked against Wechsler results for a group of 35 retarded readers studied several years previously by another psychologist. Group findings for the 35, who were all boys, show the same inter-test relationships as are included in the above list of characteristics. The only exception is that there was not as large a difference between the IQ's on the Performance and the Verbal Scales as in the present group of 80 cases. Since the 35 boys were ten months older than the 80 cases and of slightly higher intelligence, it is all the more significant that the characteristic subtest pattern holds for them also.

The findings are considered of importance because of the implications for instruction and guidance. Retarded readers in the junior high school have been found to be pupils with potentialities for mental development which need to be awakened. Intensive work with certain individual pupils has been suggestive of method. Individual counseling appeared to be welcomed by a number of these children, when it offered some definite instruction as to the nature of individual growth and the relation of total growth (including personality development) to school learning and learning problems. They seemed to benefit by these discussions. Reading teachers in their approaches to the small group may also be able to experiment with this sort of instruction in the group situation. There is, however, much need for individual counseling with retarded readers on the part of psychologists or other persons with clinical training because of these children's active concern with serious personal problems.

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[10] Compare Table II on p. 54.

Part Two

Methods and Materials for Use in the Special Reading Program

Introduction
Teaching word recognition skills
Developing a meaning vocabulary
Improving comprehension
Special study skills
Rate of reading
Reading and related areas
Materials for a reading program
Appendixes to Part Two

VIII. Introduction to Part Two

In Part One of this Guide, the problem of the retarded reader is discussed in its many aspects. The term "retarded reader" is defined; the characteristic problems of these children and causative factors are pointed out at some length. A discussion of the situation in the junior high schools today is presented and the changes which have brought about the present conditions are indicated.

It was pointed out that the main purpose of this Guide is to help in the difficult task of setting up a learning environment that is sufficiently potent and attractive to stimulate new growth in reading on the part of children who have had a long history of failure. Teachers of reading are concerned not only with children's differences in specific reading needs but also in their differing rates of growth, their positive interests, and the personal attitudes which influence learning. In the treatment of the psychological aspects of this problem, the importance of the teacher's function in creating and maintaining a good relationship with the pupils is stressed. The organization and administration of a special reading program also are treated.

Although Part Two of this Guide deals chiefly with methodology, it must be remembered that method cannot be considered apart from the child; there is no such dichotomy. It is well for the teacher to keep in mind the goals he is seeking, not only in terms of teaching progress but of the child himself. Successful instruction of children who are retarded in reading must provide for growth in attitudes and habits instead of furthering *only* the narrow purpose of "raising" a reading grade. Indeed, growth should be evaluated in terms of attitudes and habits as well as in terms of reading grades. Unless the pupil is motivated to a desire to learn, teaching gadgets and devices are of little avail. The teacher seeks clues to the pupil's interests and assets in the initial contacts. Often well-planned individual instruction starts the pupil on the right "track" and the satisfaction of even a small measure of success does much toward solving his problem.

The emphasis in Part Two is upon specific instructional methods and materials. This emphasis is in response to the large number of requests by teachers and supervisors for definite teaching suggestions and, especially, for practice material of a skill type. A special effort has been made to meet this constantly expressed need through the inclusion of a large number of sample exercises. Because of limitations of space, most of these could not be presented in entirety. The exercises are not meant to be used in isolation but as practice material to accompany and follow the teaching of reading techniques. In no case should they be assigned "cold."

Because of the differing populations in the many schools and the different levels of achievement found in these schools, it is not possible to describe one pattern of instructional procedure that will fit the various types of cases in all schools. Moreover, because of the variation in the policies of the schools in selecting retarded readers for special instruction, which results in many types of programs, no special "model lessons" can be outlined. Instructional approaches will differ greatly—some teachers will work with children on a first grade level (or even lower) while others are working with children who can achieve on a fourth, fifth, or even sixth grade level.

Because of the wide variation required in conducting reading instruction in the junior high schools, it seems best to present a fairly complete analysis of the basic reading skills with suggestions to teachers as to how to reinforce these skills when the children show need for such instruction. Part Two of this Guide, therefore, is a handbook of the specific skills which are essential for reading and is intended for use in the special "out-of-class" reading program. It will also be found helpful in regular classroom instruction in the junior high school and in the middle and upper grades of the elementary school. The suggestions are based on the experiences of the Bureau staff in working with retarded readers in junior high schools and in many investigations of reading carried on by the Bureau in previous projects.

It will be noted that some of the skills listed indicate a certain sequence or order in the way they are presented. This does not mean, of course, that any sequence must be followed rigidly. The teacher chooses only what is suited to the needs of each pupil. He must know what the child can already do, at what level he must begin, and how to proceed thereafter. Some skills listed may seem very simple for junior high school pupils—e.g., certain word recognition techniques; but a considerable number of pupils in the Bureau project had to begin with the development of these simple skills because they had little or no acquaintance with the symbols on the printed page. Certainly the procedures used with the nonreader will differ greatly from those used with pupils who are not so severely retarded.

The act of reading should not be thought of as a group of separate skills. It is a composite and complex process and should always be thought of in terms of purposes and outcomes as well as in terms of techniques. The ultimate purpose of reading must always be kept in mind; i.e., to enable the child to derive needed information and pleasure from the printed page. For convenience, however, and for specific guidance of teachers, certain suggestions for reading instruction are discussed under special headings which cover the phases of basic reading instruction.

The methods and materials suggested are not new; they are not different from those used in the development of basic skills in any reading program. There is no special pattern of approach; there is no magic formula. The teaching of retarded adolescents is a slow, time-consuming process; it takes hard work, much patience and understanding, and a thorough knowledge of the basic instructional techniques.

As was pointed out in Part One, the non-English-speaking or the bilingual children present special problems and require different approaches. Many schools are experimenting with programs for these children. In spite of the differing approaches, both the retarded reader and the child of foreign background have a common need—a variety of experience as a basis for learning. Many of the suggestions in Part Two can be adapted to the teaching of bilingual children.

Much discussion is given today in the schools to the matter of grouping pupils for reading in the classrooms. Some schools cannot provide for "out-of-class" instruction for very poor readers and, therefore, must group the pupils within the class at times according to their various reading levels and needs. This is not altogether satisfactory in junior high schools when there is a wide range of achievement because the better readers are penalized to some extent while the poorer readers are receiving the attention they need from the teacher. It is too difficult for the teacher to meet the needs of such a wide range of abilities in the usual class period in the junior high school. Some schools will organize both out-of-class programs and class programs where pupils will work in larger groups. It is not the purpose of this Guide to go into a discussion of the pros and cons of grouping or of the techniques involved. Grouping is a matter of class organization and management. There is no definite pattern, and the bases upon which groups are organized are many and flexible. It is a well-known fact that the use of reading scores as the chief basis of grouping is inadequate. Pupils with the same reading scores frequently differ greatly in their specific needs, and they should not be placed with others merely because their group test scores are similar. Various factors such as needs, interests, and abilities are used. There are three important principles which every teacher should keep in mind: (1) the purposes of grouping should be clear; (2) suitable materials must be available; (3) the children must be able to work independently on worth-while activities at their own achievement and interest levels. If these principles are carefully followed, most of the problems of why, how, and when to group will have been solved. Many of the exercises suggested in Part Two of this Guide can be used for independent activities with groups in the classroom. Follow-up of the pupils' independent work by the teacher is essential.

All teachers of reading in the junior high school should be familiar with the philosophy and workings of the developmental program, core curriculum, and unit approach in order to incorporate some phases of these programs into their own special reading programs. The reading teacher, of course, cannot always know what units are in progress in the various classrooms even though he may be in fairly close touch with the teachers of the content areas. An effort should be made, however, to carry over classroom interests and activities wherever possible. The reading teacher may plan special projects which can operate within the program of the reading room. For example, he can plan for visits to the school library and perhaps to the public library. These visits may be followed by reports and discussion of the books seen there.

In Part Two, emphasis is also given to the relation of reading to the other language arts—spelling, writing, speaking, and listening. The importance of integration of reading instruction with the content areas of the curriculum is also pointed out. Extensive reading and materials of instruction have been discussed to some extent, but perhaps not enough in proportion to their importance. A whole monograph could be devoted to these two areas alone.

An extensive bibliography follows in the Appendixes to Part Two. It is suggested that the teachers' reference library in each junior high school contain the latest books on reading instruction and on the study of the adolescent. It is important that teachers keep up to date with the thinking of authorities in these fields.

IX. Teaching Word Recognition Skills

It cannot be assumed that all boys and girls entering junior high school are able to read the printed materials used in their English, social studies, and other classes. Junior high school teachers know that many of their pupils have not acquired the fundamental skills essential to independent reading, and they realize that training must be given in elementary reading techniques. Little can be expected as far as comprehension is concerned unless a pupil can recognize the most common words and can work out the identities of unfamiliar ones; the area of word recognition, therefore, is of primary concern to the reading teacher. It is important that junior high school teachers and supervisors understand how independence in word recognition is acquired and that they accept the fact that instruction in the junior high school has to extend far back to elementary grade levels in order to reach some of their retarded readers.

The term word recognition as used in this Guide means more than ability to pronounce words that are met in reading. Mere fluency may be confused with real recognition which implies a degree of familiarity that enables the pupil to understand the meaning of a word when it is seen or heard and to use it in speaking and in writing. Familiarity comes from direct life experiences or from carefully interpreted vicarious experiences which provide the background of meaning needed in interpreting words. In addition to a variety of concepts, a pupil must bring to reading material certain word recognition techniques. The acquisition of recognition skills cannot be left to chance; a systematic program of diagnosis and training has to be followed. In order to guide teachers in developing such a program, the diagnosis and teaching of the various phases of word recognition will be presented here under the following headings: Using Oral Reading for Diagnostic and Teaching Purposes, Building a Sight Vocabulary, Utilizing the Context, Employing a Phonetic Approach, Employing a Visual Approach. Most retarded readers require training in more than one of these areas. Furthermore, they need help in shifting readily from one approach to another that is more appropriate and in combining different techniques in attacking words.

1. Using Oral Reading for Diagnostic Purposes

The diagnostic aspect of oral reading is basic

Diagnosis is important not only at the beginning of the work with retarded readers but also throughout the entire training period. In the reading project in the junior high schools, both standardized oral reading tests and ordinary reading material were used as diagnostic instruments.

Using Standardized Oral Reading Tests

Oral reading tests generally include a series of paragraphs or stories arranged in order of difficulty; as the pupil reads, the teacher records on another copy of the test the time taken in reading each section of the test and the errors made. Later the teacher compares this record with the test norms. In recording errors, the teacher may adopt a code suggested in a test manual or improvise until he arrives at the system that is most rapid for him. For example, the following entries might appear on the teacher's copy of the paragraphs the pupil is reading:

(r) house	(*house* was read as *horse*)
paint(ing)	(*painting* was read as *paint*)
(a)round	(*round* was read as *around*)

Accompanying some tests are detailed record sheets that list types of errors to be noted; directions for using the record sheet as well as for administering and scoring the test appear in the test manual. A teacher who has had little experience in diagnostic procedure, however, may find it confusing to consider many different errors. At first, he may look for only one weakness, such as phrasing, and as he acquires facility in noting and recording information, he may add other items. Later he may devise a check list similar to the one that follows.

Technique	Symptoms Noted	Dates			
Phrasing	Word-by-word reading	✓			
	Wrong groupings of words.				
	Punctuation ignored.	✓			
Word Attack	Weakness in phonetic approach.				
	letter sounds.				
	common phonograms.	✓			
	Misuse of context.				
	over-dependence.				
	little utilization.				
	Limited sight vocabulary	✓			
	Weakness in visual analysis				
	Dependent upon:				
	general configuration.	✓			
	initial parts.				
	striking features.				

Diagnostic reading tests by Gates, Gray, and Durrell are described in the Supplement to Part I.

Using Books

Some books found in the reading rooms and in junior high school classrooms were used for diagnosing reading difficulties. In utilizing such materials for this purpose, it is possible to maintain the informal relationship between pupil and reading teacher that is so desirable in a testing situation and that is difficult to achieve when a standardized test is administered. To find an individual's oral reading grade, the teacher selects a book at the retarded reader's silent reading level or slightly below it. A section at the middle of the book is assigned and if it is too difficult or too easy, the pupil is directed to the beginning or to the end of the book or to a book at a higher or lower level. The pupil may glance at the selection before starting to read it aloud. He reads orally to the teacher, and when he encounters two or three word recognition difficulties per page and shows by his answers to a few pertinent questions that he comprehends what he reads, his approximate oral reading level has been reached, e.g., first half of third year, end of second year. It is a point just beyond which he begins to show signs of tension—body movements, finger-pointing, repetition of words, and mispronunciation. Betts gives a full discussion of the problem of reading levels in *Foundations of Reading Instruction*, Chapter XXI. (See Appendix A, Section I, 2.)

The oral reading grade is compared with the silent reading grade to determine the amount of emphasis that should be given to oral reading. In noting the discrepancy between the silent and the oral reading levels, teachers should be aware that for extremely retarded readers the difference may not be so great as it appears. Because of the inadequacy of the grade norms at the lower levels of some silent reading tests, pupils may be assigned grade scores higher than the ones they would achieve on a more appropriate test. A grade score—silent or oral—has a limited value only, for it does not give the teacher all the information he must have. It is a composite of various elements and indicates the approximate reading level at which a pupil functions at the time, but it does not indicate the specific techniques that he lacks.

In order that a pupil's word recognition needs may be revealed, he is required to read aloud material that is somewhat difficult for him and which he is not permitted to see before reading orally. At one sitting, the teacher supplies the words on which the pupil hesitates and makes a list of these words for future analysis. A study of the list discloses the kinds of words not recognized: common sight words, words not phonetic in character, unusual words, words that should be recognized from the context. At another sitting, the pupil is not given help with unfamiliar words but is encouraged to ascertain them for himself. The teacher notices to what extent phonetic and visual approaches function and how versatile a pupil is in shifting from one to the other as he tries to identify a word in its context.

Inadequate word recognition techniques result in impaired comprehension which may be detected through oral reading. The pupil who does not understand what he reads cannot convey meaning to the listener. One or more of the following symptoms may characterize his reading: failure to group words into thought units; lack of stress on the most important word in a phrase; excessive speed or slowness; regular repetition of one or more words; disregard for punctuation marks.

Books serve another purpose in the study of the retarded reader. After selecting a book at a level more advanced than the books used in the diagnosis, the teacher reads a passage to the pupil and questions him on the content. If the material is readily grasped, a selection at a higher level is tried. The highest level at which the retarded reader understands selections read to him represents the approximate level at which he is capable of comprehending such material. The spread between his reading capacity and his actual reading achievement indicates the degree of retardation. This information about a pupil's reading expectancy is valuable to the teacher in choosing materials for him and in planning his program.

The same procedure may be employed in determining the extent of the pupil's meaning vocabulary. A sampling may be taken from the new word lists in several readers of a graded series. As the word is pronounced by the teacher, the pupil defines it, or gives synonyms for it, or uses it in context. Thus his capacity for understanding the vocabulary of the readers used is revealed. For further discussion of the use of books in diagnosing reading difficulties see "Testing Reading With a Book" by E. W. Dolch, *Elementary English,* March 1951.

Diagnosis is continuous after the initial study of difficulties. In the teacher's daily work with the child, he frequently listens to the child read, questions him about meanings, and observes his responses to suggestions. Thus the reading teacher's understanding of pupils' reading problems grows continuously; he is, therefore, better able to direct his teaching toward the specific reading needs of the retarded boy or girl.

Just as the individual's problem is analyzed factor by factor, so the pupil is made aware of one fault at a time and guided in eliminating it. For instance, a pupil and teacher have worked together to correct word-by-word reading; the pupil has improved in certain word recognition techniques necessary for fluent reading and is now phrase conscious and can read in thought units except when a phrase is broken at the end of a line. The teacher explains and demonstrates the technique of pausing after the preceding phrase while the eyes travel on to the next line and the voice is withheld until the complete phrase can be said. After the pupil has grasped the idea, he is given assistance in his first attempts, and then he is left to practice by himself. He knows that during the following reading period the teacher, his sole audience at the beginning stages of his development, will listen for this aspect of phrasing. In the meantime, the teacher has recorded the pupil's progress and has indicated the technique to be checked; the next time he sees the pupil, he follows through with encouragement and with whatever additional instruction is needed. Such a brief daily check-up of oral reading for a specific purpose stimulates interest in self-improvement while the personal concern of the reading teacher gives the pupil satisfaction and contributes towards the development of self-esteem.

2. Building a Sight Vocabulary

Retarded readers generally lack competence in the recognition of words

The problem presented by the junior high school pupil who has a limited sight vocabulary can be understood better if the teacher appreciates the way in which a young child's sight vocabulary is developed. The first few times a child meets a word, he may have to be told what it is or he may be able to work it out for himself. After a few visual presentations of the word on experience charts, in incidental reading, or in books, he recognizes the word; that is, he associates its printed form with its sound and with its meaning. He can do this because in some way he has experienced the activity or object which the printed symbol represents. The more comprehensive and intense such experiencing has been, the more readily will the pupil recognize the word.

For certain children many additional experiences with a word, and often direct teaching or drill, are necessary before it is incorporated into their sight vocabularies. In large classes, it is very difficult to provide each child with the number of contacts with a word which he may need to ensure its immediate recognition. Continuity of vocabulary experiences from grade to grade is often lacking. As a result, some pupils reach junior high school with very inadequate sight vocabularies. Others have limited sight vocabularies because they have not acquired a good method of perceiving words clearly; they read "then" for "than" and "house" for "horse" and make similar errors. If a word is not perceived clearly at first, it cannot be recognized on sight, and the pupil relies on guessing. Sharpness of perception is a definite asset in word attack. Retarded readers who have inadequate sight vocabularies have been aided by training in visual perception and by an increase in the number of contacts with each new word.

In addition to poor visual perception, there is another cause of inadequate sight vocabulary which occurs infrequently but which should be recognized if both teacher and child are not to become discouraged. Some pupils, even with normal vision, have poor "visual memories." Despite good teaching the child does not recognize many words which he seemed to have learned in previous lessons. Even if we assume that the condition itself cannot be corrected by the teacher, instruction has to be modified to cope with the child's limitation. All avenues by which the child can learn must be utilized to greatest advantage; auditory training is given more emphasis than visual; kinesthetic exercises which include copying and tracing are helpful in some cases in giving the pupil the "feel" of the word. Some teachers of reading may find Hildreth's discussion of the kinesthetic approach helpful. (See Appendix A, Section I, 17.) Since children who are thus limited need many repetitions of a word before they can recognize it on sight, it is desirable to provide them with frequent, brief, and varied exercises. Copying and tracing as well as writing a word from memory and then checking on its accuracy were found to be effective procedures for slow-learning pupils, but they were very time-consuming. For this reason and because there was danger that it would become monotonous and that some pupils would associate it with punitive assignments, the kinesthetic approach was used only as a last resort.

The suggestions given here for helping junior high school pupils increase their sight vocabularies are by no means the only procedures and may not be suited to all cases:

Extensive reading of easy interesting material at a level below the pupil's reading grade level is probably the most pleasant way of reinforcing sight vocabulary. Unfortunately, the amount of literature that *seriously* retarded junior high school pupils can read with *interest and enjoyment* is extremely limited. There is much material available, however, at the fourth grade reading level and higher.

Pupils kept individual notebooks in which they wrote the words not recognized instantly in context, illustrated them pictorially when possible, and used them in sentences that clearly showed their meanings. Teachers in the various curriculum areas encouraged retarded readers to make special vocabulary books with such titles as "Science Words," "Transportation Dictionary," "Expressions Used in Art." When a pupil finds that he has insufficient skill to read fluently he will see the need to study individual words or groups of words.

Teachers introduced abstract words such as "often," "freedom," and "quiet" in meaningful phrases or sentences and presented them on illustrated charts whenever this served a purpose. Action words like *sift* and *pour* used in homemaking classes were taught in the same way.

The writing of a few sentences about something that is of personal interest to a pupil calls for the functional use of the most common sight words such as, *and, were, does,* and it involves kinesthetic learning as well. For nonreaders and for those just above that level, this procedure was found to be one of the best. When a pupil was unable to write his own story, he told it to the teacher who recorded a sentence or two for him to copy and then read aloud. Usually the pupil made an illustration which later served as a clue in rereading the story after it had been incorporated into his own storybook or had become part of a group collection. If a retarded reader was able to write reasonably well, he prepared his own brief story, and the teacher showed him how to correct any errors he had made. He was then allowed to typewrite his story; this aided in the development of left-to-right progression and afforded further pleasurable experience with basic sight words. In the beginning the pupil's original writing was confined to one or two sentences lest he become involved in the mechanics of writing and the main purpose of the activity be forgotten.

The word-picture type of approach to building a sight vocabulary was employed for pupils who read at a primary grade level. It took several forms:

Printed labels on pictures or objects in the room.

Illustrated charts which showed the meaning of words or phrases that the pupil was going to meet in his reading.

Illustrated word cards such as the Dolch Picture-Word Cards, a sample of which is given here. (See Appendix B, Section I.)

Front	Back
Picture of tree and the word "tree"	the word "tree"

Since the meaning and the visual appearance of a word are presented simultaneously, these cards were used for initial teaching. In addition, they were studied independently by a pupil as he tested himself and checked his own responses; or partners tested and checked each other. The word-side of the cards was exposed rapidly by a teacher who wished to discover the extent of a pupil's knowledge of common words; later a diagnosis of errors was made and thus further insight into the pupil's basic word recognition difficulties was gained.

Original picture-word cards using the vocabulary of the pupils' daily experiences.

Individual word lists, such as the Dolch vocabulary which follows, were invaluable for discovering the extent of a seriously retarded pupil's sight vocabulary, for diagnosing his errors, and for encouraging self-improvement. By a rapid exposure of each word the teacher determined the extent of the individual's sight vocabulary. The number of words tested at one time depended upon the pupil's response. He might have been tested on the first five words only or on the first column. Pupils who functioned on a fourth grade reading level or higher generally were ready for the entire list.

Each pupil had his own list which enabled him to study by himself the words he did not know, to work with a partner, and to see evidences of his own progress as the number of known words increased. The method of studying the unfamiliar words varied, e.g., the sounding approach was used for words that are phonetic in character; a visual study of other words was made. Since this method of study and the word-picture approach do not ensure transference to reading situations, ability to recognize the new words in context was checked and practice subsequently given. Because these two hundred and twenty sight words occur again and again in all reading material, instantaneous recognition was required before a word was regarded as known.

The Dolch list was derived from a comparison of three basic word lists and consists of two hundred and twenty words found very frequently in elementary school readers and textbooks. The three lists are:

CHILD STUDY COMMITTEE OF THE INTERNATIONAL KINDERGARTEN UNION, *A Study of the Vocabulary of Children Before Entering the First Grade,* Washington, D. C., 1928.

ARTHUR I. GATES, *A Reading Vocabulary for the Primary Grades,* New York, Teachers College, Columbia University, 1926. A revision of this list has appeared since this study was made but does not change the results.

H. E. WHEELER AND EMMA A. HOWELL, "A First-Grade Vocabulary Study," *Elementary School Journal,* 31: 52-60, September, 1930.

3. Utilizing the Context

The setting in which a word occurs often indicates clearly the meaning of that word

With meaning thus implied by the context, the reader who has acquired some visual and phonetic techniques can recognize a word that is already in his listening and speaking vocabularies. Many retarded junior high school pupils are unable to utilize the context as an aid to word recognition; that is, they cannot discover the identity of an unfamiliar word through a consideration of the meaning of the material that surrounds it. Some of these retarded readers are unable to concentrate on the thought of the selection because they have acquired neither a basic sight vocabulary nor elementary techniques of word recognition. For such pupils, who are functioning at a primary reading level, utilizing the context is not given special emphasis. Instead, skill is developed gradually along with other word recognition techniques through the use of easy material that is meaningful. There are other retarded readers, however, who have acquired various basic skills but have never had sufficient training in using the context. Although they may be reading on a fifth or sixth grade level, their reading is not so efficient as it might be. It is these pupils who profit from immediate guidance in utilizing the context to identify unfamiliar words.

For the retarded reader as well as for other readers, the context approach is valuable only when it is employed along with one or more visual or phonetic clues. If it is used exclusively, indiscriminate guessing and distortion of meaning may result. In identifying an unfamiliar word, the skillful reader uses several techniques simultaneously; he is able to make use of the hints that he gets from the context at the same time that he is looking at the word for visual and phonetic characteristics. The context approach to word recognition is more easily acquired by the junior high school retarded reader than by the younger child. This is true because the older pupil has a comparative wealth of experience to bring to reading material at the lower elementary school reading level.

In order to teach retarded readers how to make effective use of the context, it is desirable for the junior high school teacher to know something of the early stages in the development of this technique. In the prereading period, the child completes sentences which the teacher starts; for example, "The boy was bouncing the ____." The meaning of such a statement is so clear that the child readily finishes it. He is then led on to completion exercises where the meaning of a whole story or a part of it must be considered. For instance, in a story about a boy losing his dog, the sentence to be completed is "John lost his ____." If the child does not think of the meaning of the whole story, he may name any one of many articles which he knows from experience that boys sometimes lose. However, in the setting of the particular story, the response is limited. Later, when the child is able to read, he applies the techniques of utilizing context clues in exercises similar to those which he had in his prereading program. When he has acquired some skill in other word recognition techniques, he may try simple exercises like the following which involve visual discrimination as well as context clues.

Tom caught a fish on his book.
hook.

In such an exercise, an oral response is not sufficient. Precautions must be taken lest the pupil say "hook" while indicating the word "book." (For additional exercises in developing the technique of using the context along with other word recognition clues see *Eye and Ear Fun,* Appendix B, Section I.)

In addition to clues found in the story, the reader uses any others that may be present in illustrations and in titles. How the various clues function in a read-

A BASIC SIGHT VOCABULARY OF 220 WORDS — E. W. Dolch

(Reproduced with permission of the author)

These words make up 50 to 75 per cent of all school reading matter. They are arranged in order of difficulty.[1] For instructional purposes it is important that they be known in any order and not just as they occur in the columns.[2] The list may be divided into small units for use with very poor readers.

- a
- I
- too
- to
- two
- the
- in
- see
- into
- and
- up
- blue
- she
- yellow
- he
- go
- you
- we
- big
- red
- jump
- it
- play
- down
- for
- old
- is
- me
- look
- can
- good
- brown
- six
- be
- today
- not
- little
- one
- black
- my
- at
- all
- so
- by

- do
- are
- him
- her
- on
- green
- eat
- four
- said
- away
- run
- they
- that
- going
- did
- who
- like
- come
- had
- saw
- no
- long
- yes
- an
- three
- this
- around
- was
- just
- ten
- get
- if
- soon
- its
- some
- from
- fly
- then
- but
- as
- under
- before
- walk
- stop

- out
- his
- make
- your
- ride
- help
- call
- here
- sleep
- cold
- will
- pretty
- them
- when
- round
- am
- white
- funny
- put
- take
- of
- say
- or
- ran
- work
- with
- there
- about
- after
- what
- ask
- sing
- must
- five
- myself
- over
- cut
- let
- again
- new
- well
- have
- how
- keep

- drink
- sit
- made
- went
- has
- seven
- right
- why
- please
- upon
- give
- once
- together
- us
- tell
- ate
- where
- many
- warm
- laugh
- live
- now
- came
- buy
- very
- hold
- would
- hot
- open
- light
- their
- pull
- may
- goes
- small
- find
- could
- fall
- think
- far
- found
- read
- were
- best

- because
- grow
- fast
- off
- draw
- bring
- got
- always
- much
- does
- show
- any
- try
- kind
- wish
- carry
- know
- only
- pick
- don't
- gave
- every
- which
- our
- want
- thank
- better
- clean
- been
- never
- those
- write
- first
- these
- both
- shall
- own
- hurt
- eight
- wash
- full
- use
- done
- start

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[1] NEMEC, LOIS G. AND LOSINSKI, BLANCHE. "A Study of the Difficulty of Dolch Basic Sight Vocabulary in the Second and Third Grades of the Rural Schools in Twenty-two Counties of the State of Wisconsin." *Journal of Educational Research,* 35:211-14, November, 1941.

[2] The list is arranged according to parts of speech and in alphabetical order in *Better Reading,* E. W. Dolch, Garrard Press, Champaign, Illinois, 1951.

ing situation may be seen in the following illustration in which a difficult word, *capsized*, is used to point up effective use of the context.

Let us suppose that in reading about the adventures of two boys at a camp, a pupil meets the following sentence:

> "Suddenly the canoe *capsized* and the boys found themselves in the water."

The word *capsized* is not recognized at sight. However, a hint as to what happened to the canoe may be found in an illustration, in the title of the story, or in the introductory sentence; or if the pupil has not found any clues to the meaning of the word previously, at least after he has read the remainder of the sentence he will know that the canoe must have overturned. He then goes back and looks at the word. He may recognize the syllable "cap." This clue, or any other, in addition to the knowledge that the canoe upset, helps him recall the word "capsized" which he has met previously either in some outside experience or during the *preparatory* activities for the reading lesson.

In guiding retarded pupils toward the discovery and use of contextual clues, the reading teacher at first demonstrates the procedure for the group and works with individuals in their early attempts. As soon as a pupil understands the technique, he is given many opportunities to apply it independently. For example, in preparing a group for some stories, the reading teacher did not present a new word on the blackboard or on charts. Instead, he used the word several times in meaningful spoken context, and the pupils were encouraged to include it in their oral contributions to the discussion. Then they had an opportunity while reading to apply the technique of utilizing the context to a word previously heard and spoken.

The context approach was found valuable in developing comprehension as well as in promoting skill in determining the identity of a word. It was a particularly worth-while aid to word recognition for *mature* pupils who derived little satisfaction from the more or less mechanical analysis of words. Other suggestions for utilizing the context will be found in the section of this book that deals with vocabulary development.

4. Employing a Phonetic Approach

Some pupils have little skill in attacking words

It was found that an appreciable number of junior high school pupils required instruction in the phonetic approach at the most elementary level. Visual techniques were used to some extent by these pupils, but in many cases facility in the phonetic approach was entirely lacking. Where the visual approach has failed as a major technique for some children, the phonetic approach often "works" to a considerable extent. It must be remembered, however, that the use of phonics is not a complete method of teaching reading but is only one approach to word recognition. When pupils have been through six grades of the elementary school and do not yet possess a sight vocabulary necessary to good reading achievement, every technique possible must be employed until some favorable result is obtained. It is agreed that reading is really a process of getting thought and the main goals are to strive to place word recognition skills in meaningful context and ultimately to have the child comprehend and enjoy the content. Although major emphasis should be placed on these goals some attention must be given to the place of phonics in the program of retarded readers.

Phonetics, the science of speech sounds, and phonics, the application of phonetics to reading, are both included in this approach. Skill is acquired through training in auditory perception to ensure the correct hearing of sounds, in speech for the proper reproduction of the sounds heard, in visual perception for associating each sound with its printed symbol, and in blending in order to join the sounds to form words.

To become skillful in the phonetic approach a pupil must know the sounds for which letters and letter combinations stand; he must be able to give one or more sounds for each letter or letter combination. If the reading teacher is to direct his efforts toward a pupil's specific needs, he must find out just which sounds are not known. The following list of sound elements is suggested for initial diagnosis:

consonant sounds
  single consonants
  consonant blends as *cr* in crown and *str* in strap
  consonant digraphs: *ch, sh, wh, th, ph*

vowel sounds
  single long and short vowels
  two-vowel combinations as *oa* in boat
  diphthongs as *oi* in boil

common syllables
  ing in going   *ed* in jumped and started
  er in taller   *a* in among

Many pupils in the reading project needed some training in each of these three areas. In a few cases, however, phonics had been overstressed in the school program, and the pupils' major approach to word recognition was through letter sounds. As a result, attention was focused on the mechanics of reading rather than on the meaning of the passage. Such pupils needed guidance in the use of context and in visual techniques. Because of their varying needs, retarded readers had to be considered individually and provided with the kind of training that would enable them to acquire skill in the phonetic approach and to integrate phonetic, contextual, and visual clues in the efficient recognition of words.

Testing Consonants

First it is necessary for a teacher to discover the extent of a retarded reader's knowledge of consonant sounds and his methods of word attack. During reading activities, the teacher takes notes of individual weaknesses and progress. If the efforts of both the pupil and teacher are to be channeled toward specific weaknesses, however, a more direct approach is necessary. For example, a letter sound test for individuals may consist of a typewritten or printed list of the lower case letters arranged miscellaneously or of a page of reading material on which the teacher has underlined the letters to be tested. The pupil is told to give the sound of each letter as the teacher points to it. The teacher may demonstrate by pointing to the letter *s* and giving its sound. Standardized oral tests may be used for the same purpose, as well as teacher-made tests, for both groups and individuals. Samples of teacher-made tests follow.

a) SINGLE CONSONANTS. The pupils underline or encircle on their individual sheets the word on each line that is read by the teacher. The teacher gives whatever explanation is necessary to enable the pupils to understand the directions. This test was given to groups of pupils who were functioning at only a first or second grade reading level.

b) CONSONANT BLENDS. Pupils underline or encircle the word on each line that is read by the teacher. The teacher gives whatever explanation is necessary to enable pupils to understand the directions. This test was given to pupils who knew individual letter sounds and were reading at the primary level.

a) **Pupil's Page**

1. dig	big	pig	wig
2. cat	mat	fat	hat
3. rip	dip	tip	lip
4. weed	need	seed	feed
5. not	got	hot	pot
6. he	me	be	she
7. trust	rust	just	must
8. kill	mill	sill	will
9. may	lay	say	play
10. fine	mine	wine	shine
11. bow	cow	now	how
12. sick	tick	lick	pick
13. back	quack	tack	pack
14. rest	vest	nest	best
15. bit	hit	lit	sit
16. hen	men	ten	den
17. can	ran	van	man
18. win	pin	tin	bin
19. pet	met	net	yet

Teacher's List: (words to be read aloud by the teacher)

Line 1. big
2. cat
3. dip
4. feed
5. got
6. he
7. just
8. kill
9. lay
10. mine

Line 11. now
12. pick
13. quack
14. rest
15. sit
16. ten
17. van
18. win
19. yet

At another sitting different words may be selected for the teacher's list.

b) **Pupil's Page**

1. sell	well	swell
2. clap	cap	lap
3. mock	sock	smock
4. sin	spin	pin
5. drip	dip	rip
6. bow	blow	low
7. sap	nap	snap
8. sip	slip	lip
9. rake	bake	brake
10. pay	play	lay
11. trap	tap	rap
12. tin	twin	win
13. gay	ray	gray
14. sold	cold	scold
15. cramp	ramp	camp
16. kill	sill	skill
17. fight	fright	right
18. tick	stick	sick
19. peach	reach	preach
20. stain	strain	train
21. slit	spit	split
22. scream	seam	cream

Teacher's List: (words to be read aloud by the teacher)

Line 1. swell
2. clap
3. smock
4. spin
5. drip
6. blow
7. snap
8. slip
9. brake
10. play
11. trap

Line 12. twin
13. gray
14. scold
15. cramp
16. skill
17. fright
18. stick
19. preach
20. strain
21. split
22. scream

At another sitting different words may be selected for the teacher's list.

c) CONSONANT DIGRAPHS. Consonant digraph lists may be used with individual pupils who are reading at a primary level and in whose oral reading or speech there is evidence of difficulty with specific digraphs. As the pupil reads the list, the teacher notices whether or not the digraph is pronounced correctly and with confidence. Similar lists can be made for any other digraphs that are found difficult for some pupils.

ch

Initial ch		Final ch	
chop	chart	inch	catch
child	cheese	ranch	pitch
chase	chin	lunch	punch
chick	chair	much	teach
chum	cheer	match	coach

sh

Initial sh		Final sh	
she	shade	fish	fresh
shoe	ship	flash	splash
shall	shave	rush	dish
share	sheep	crash	wish
should	shore	blush	brush

Teaching Consonant Sounds

In some cases, reading retardation is so extreme that pupils know only very few letter sounds. When an individual really knows a sound, he is able to hear it clearly, produce it distinctly, and associate the visual symbol with the spoken form. In reading a familiar word, he immediately recognizes the individual letter sounds in their functional settings and his response to the word as a whole is automatic. When he meets an unfamiliar word that is phonetic, he is able to produce the individual sounds and blend them together to form a word which he recognizes as one he has heard and perhaps even spoken.

In learning the consonant sounds then, the pupil must have opportunities to listen to words in which the particular sound appears in various positions – initial, medial, final; he must produce the sound in numerous words and associate each sound with its printed symbol. These words may be in the form of either original lists built by the individual or group, or assigned exercises like those given in phonics workbooks.

Some retarded readers know the sounds of the individual letters, but they have to be taught to blend them to form syllables or words. At first the pupil listens while the teacher demonstrates the process of prolonging one letter sound until the next is begun; then he and the teacher together blend the sounds to form words. Gradually the process is speeded up and the teacher allows the pupil to complete a word by himself. Pupils who attack unfamiliar words by a spelling method can be trained to substitute the letter sounds for the letter names in a blending approach. The blending technique can be applied also to the letters of an unfamiliar syllable and to the syllables of a polysyllabic word. For some retarded readers blending is an extremely difficult technique; therefore, it is desirable for them to have only a very brief practice period of this type followed by a satisfying reading experience. As they gain skill, they think the sounds instead of saying them and by degrees change from the slow oral blending procedure to the more efficient silent approach characteristic of mature readers.

Since the material suggested for testing consonants is designed mostly for diagnostic purposes rather than for measuring progress, it may be used also for teaching consonant sounds. For example, the test for single consonants on page 69 makes good practice material if the pupils are asked to read the words across a line or down a specific column; or a game may be played after the four columns have been lettered A, B, C, D. One pupil chooses a word silently and then gives its location by line number and column letter. For instance, he says "2-B" and another pupil answers, "mat." The test for consonant blends may be used in a similar way. Many other exercises appear in various workbooks and may be adapted to the needs of particular individuals. When exercises are used in teaching, it is important to remember that the retarded reader must have numerous opportunities to apply his knowledge of sounds to reading. As his new learnings function in meaningful context, they become "second nature" to him, and he is able to give his attention to the meaning rather than to the mechanics of reading.

Some consonant sounds are more difficult than others and are often mispronounced by seriously retarded readers. The reading teacher should endeavor to differentiate between pupils with careless speech habits and those who have real difficulty in pronouncing specific sounds. All pupils profit from speech training, but the latter require the guidance of a speech specialist.

A teacher of very seriously retarded readers will find it helpful to have on display or readily available for use a series of cards or a chart to be used as a pronunciation key for consonant sounds. A common word with a pertinent illustration is printed for each consonant:

ball

five 5

For such self-help aids needed by many pupils again and again, the teacher will find it worth while to use materials of good quality and to take the time needed for careful preparation.

The consonant blends and digraphs are taught to pupils who know the sounds of the individual letters. Again, as in the case of single consonants, hearing the blend or digraph clearly and reproducing it accurately are the first steps to be taken. Association of the sound with its printed symbol follows. A blend or digraph may be misread because the pupil does not really see the individual letters comprising it and as a result reads the word *string* as *sting*. In such instances, the teacher calls attention to the difference and prints both words on the blackboard or in the pupil's notebook so that he may compare them immediately. In this way the need for closer observation and finer discrimination becomes obvious to the pupil. Other suggestions for improving visual discrimination may be found in the section "Employing a Visual Approach." Another reason for the misreading of blends and digraphs is that the pupil has had no previous contact with the particular symbol. An oral check of his performance on an exercise like the following one not only will provide practice but also will help the teacher locate the difficulties that exist.

a) DISCRIMINATION OF INITIAL CONSONANT BLENDS. The pupils are asked to put a line under the word which makes each sentence correct. Oral checking is a necessary follow-up of this exercise. To reinforce learning, the correct response may be placed on the blackboard. The remaining words in parentheses may be used for supplementary oral practice.

We went to the park to (pay, pray, play) ball.
There is a (scrap, strap, slap) of paper on the floor.
The grass is green in the (spring, string, swing).
A bee's (string, sling, sting) hurts.
"America" was (swung, sung, stung) by the class.
What was your (store, score, snore) in that game?
A (stream, scream, steam) of water came down the mountain.
He will (swell, sell, smell) you a pencil for a dime.
Be careful not to (slash, smash, splash) your dress with water.
This ink will (stain, strain, slain) your clothes.

After a pupil has learned the basic consonant sounds, he may be taught the variations in pronunciation of some of the consonants such as the "s" sound of "c." Sample exercises follow.

"C" That Sounds Like "S"

To the pupil:

In each of these words the letter "c" is sounded like "s." Read the words to yourself and then read them aloud.

Initial "c"	"c" in Other Positons
cent	ice
city	race
celebrate	peace
center	price
cigarette	force
cellar	mice
cider	produce
central	exercise
cereal	recess
certain	receive

To the pupil:

Draw a line under the "c" that is sounded like "s" in each of these words: (The written exercise must be followed by an oral check.)

circus
bicycle
practice
accept
circle
civics

Soft "G"

To the pupil:

In each of these words the letter "g" is sounded like "j." Read the words to yourself and then read them aloud.

Initial "g"	Final "g"
gem	age
gentle	badge
germ	bridge
giraffe	cage

To the pupil:

Draw a line under the soft "g" in each of these words:

geography
garage
garbage
gorgeous

Testing Vowels

Pupils' needs in the area of vowel sounds can be discovered in the various informal and formal ways described for diagnosing consonant errors. Long vowels usually do not present a special problem, and for most retarded readers it is not necessary to test them formally. Short vowels in the middle position in a word tend to cause the greatest difficulty. Sometimes pupils do not perceive the letter form clearly and confuse *a*, *e*, and *o*. At other times the cause of the difficulty is auditory or phonetic in nature; retarded readers often have difficulty in distinguishing between the short sounds of *a* and *e* and of *e* and *i*. They seem never to have heard a difference and, therefore, are unable to show it in their pronunciation.

A sample group test for discovering confusion among the short vowel sounds follows:

Medial Vowels

Pupil's Page:

Draw a circle around the word that the teacher says. Read all four words across each row before you draw a circle around the correct one. (The teacher may use any directions that will be clear to the pupils.)

1. bit	bat	but	bet
2. big	bag	bug	beg
3. hat	hit	hot	hut
4. stick	stack	stuck	stock
5. pit	put	pat	pot
6. sang	sing	song	sung
7. bad	bud	bed	bid
8. peck	puck	pick	pack
9. lock	luck	lick	lack
10. pan	pen	pin	pun

Teacher's List: (The teacher selects one word from each line and reads it aloud.)

1. bat
2. beg
3. hit
4. stock
5. put
6. sang
7. bed
8. pick
9. lock
10. pun

At another sitting, different words may be selected for the teacher's list.

In this test, pupils associate the visual symbol with the sound as it is produced by the teacher. Pupils in the group who have difficulty with vowels are identified readily. For them, further diagnosis may be made by having the individual read aloud the various words in the test as the teacher records confusions such as "bat" for "bet" and "hot" for "hat." It may be necessary to isolate the vowel to find out whether or not the pupil actually hears the particular vowel sound and knows how to reproduce it. A need for training in auditory discrimination and in phonetics may be indicated.

Vowel Combinations

Two-vowel combinations and diphthongs can be tested by means of oral reading of lists like the following:

eat
seat
hear
seal
beam
heap
clean
year
feast
rear

oil
boil
coin
join
avoid
spoil
noise
point
poison
moisture

Testing of other vowel combinations can be accomplished in the same way if the teacher feels that it is necessary. If the word lists used for informal testing purposes are printed on large charts or typewritten on individual papers, they can be re-used as practice material. Exercises in workbooks may be cut out and mounted and also used for diagnostic and teaching purposes. Gradually the reading teacher acquires an assortment of testing and teaching materials suitable for various pupils in a particular school.

Teaching Vowel Sounds

The teaching of vowel sounds is similar to the teaching of consonants. Attention should be given to the suggestions for the re-use of test material for instructional purposes, to the desirability of having a pronunciation key in the form of cards or charts, and to the need for giving the pupil a clear picture of the sound of the letter and for helping him reproduce it. Training in hearing and reproducing sounds accurately may have to be given greater emphasis in dealing with vowels. Because of the frequency and seriousness of short vowel difficulties on the part of retarded readers, most of the teacher's efforts will be concentrated on that particular area of vowel sounds.

a) SHORT VOWEL EXERCISES. When a diagnostic test reveals a weakness in a particular vowel sound, oral work on lists of words containing that sound is needed. Practice in hearing the sound in context and in pronouncing words in which it appears helps the child become so familiar with the sound that he has no difficulty when he meets it in reading. The teacher may find it valuable to begin with a basic list of words for each short vowel sound. Some teachers prefer a list that includes words in which the short vowel appears in the initial position as well as words containing medial vowels. Here is a sample list for short *ĕ*:

ten
desk
end
exit
west
effort
left
egg
empty

A list for each vowel sound may be developed from individual contributions by the members of the group. Pupils may spontaneously give words containing a particular short vowel sound or find such words in their readers. In addition, sentences containing several words in which the particular sound occurs may be used for purposes of testing and practice.

After a pupil has learned the individual sounds with which he has had difficulty, discrimination exercises for vowel confusions may be given. Exercises like those that follow may be used first as tests and then for instructional purposes. The follow-up may take the form of oral correction accompanied by the writing of the answers on the blackboard. The latter precaution is taken to avoid any confusion in associating the particular sound with the printed letter.

Samples:

Medial Vowel Discrimination

Draw a line under the word that makes the sentence right.

1. He (sat, sit) down on the chair.
2. John took his (bat, bet) to the game.
3. He (hit, hot) a home run.
4. The red light says you must (step, stop).
5. He made a (shop, ship) in the school (shop, ship).
6. The two teams (ran, run) a race.
7. A dime is the same as (tin, ten) cents.
8. The boy will (fell, fill) the pail with water.
9. The dog likes to play and (ran, run).
10. The teacher (led, lad) the class to the door.

Discrimination Between ă and ĭ

Draw a line under the word that makes the sentence right. (has or his)

1. Who (has–his) my coat?
2. Where is (his–has) hat?
3. The boy (has–his) a book.
4. He lost (has–his) pen.
5. Father put on (his–has) hat.
6. He found (has–his) books.
7. Who (has–his) a penny for me?
8. Here is (his–has) mother.
9. He (has–his) a big dog.
10. Where is (his–has) pet?

Discrimination Between ă and ŭ

Choose the word that makes the sentence right. (ran or run)

1. That boy can _____ fast.
2. The dog _____ after the fox.
3. Did you _____ home?
4. I _____ home.
5. Who _____ for class president?
6. I like to _____.
7. Who _____ to the corner?
8. Billy _____ faster than Jimmy.
9. Can Mary _____ fast?
10. Who will _____ a race with me?

b) Short vowel games. Drill on simple words should not be overdone as it may become very monotonous, especially for the older retarded reader. To avoid an unfavorable attitude toward language activities, a teacher may devise an original exercise based on words at the pupil's interest level which he uses in his recreational activities, hears on the radio, sees on television programs, or reads on the sports page. Vocabularies pertinent to hobbies, seasonal sports, and other areas of interest serve as material for enjoyable oral and written exercises. Ideas for games may be found in various workbooks. A sample exercise follows on page 74.

c) Long vowels. The long vowel sounds do not present much difficulty. Usually a brief explanation enables the pupil to grasp the idea that a long vowel has the sound of its own name. Then he can apply this knowledge to the reading of words like *plane, old,* and *used.* Long vowel sounds are generally learned as they appear in the sight vocabulary.

d) Exercises for discrimination between long and short vowels. After the long and short vowel sounds have been studied separately, they may be presented together for further practice. Instant recognition of common words presupposes an ability to distinguish between the short and long sounds of vowels. Oral preparation and/or follow-up is a necessary part of exercises used for this purpose. In preparation for the interpretation of diacritical markings found in dictionaries, pupils may be directed to place either the long (ā) or short (ă) symbol over the particular vowel being studied. Sample exercises of various types are given here; many others may be found in workbooks.

Long ā — Short ă

Draw a circle around each word that has a long ā sound.

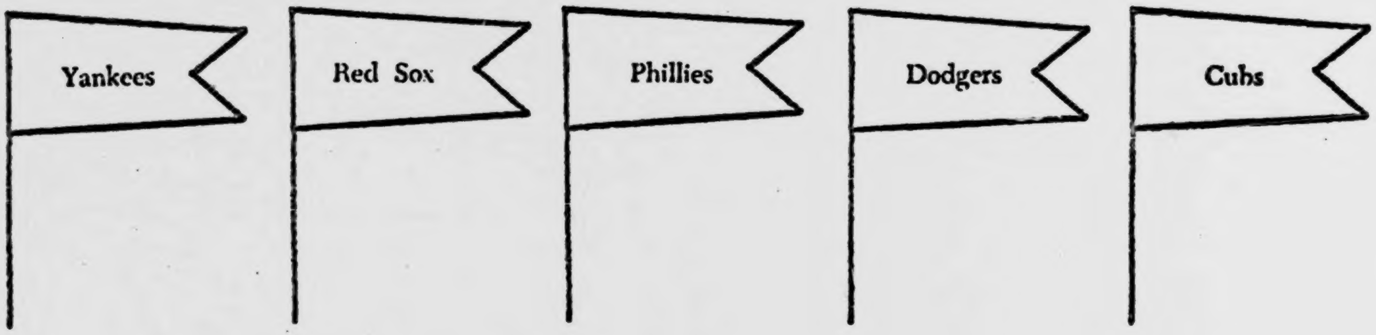
can
cane
made
sad

gave
plant
brave
lame

grand
blame
wave
gate

pat
ran
shake
plate

The underlying principle may be deduced and the pupils given the opportunity to apply it in similar exercises for the other vowel sounds.



Put the words listed below on the right vowel teams:

fence
catch
slid
run
fan
win
cap
bat
left
bunt
center
bench
stretch
ran
send
box
on
pitch
drop
mask
belt
club
pop
mit
up
stands
pen
sock
cut
stop
miss
inning
under
lot
hit
umpire

Samples:

catch ________ fence ________

Make the Vowel Say Its Name

Read the words that follow, then add an "e" to each word. Now read the new words.

can __ hat __ rat __
mad __ tap __ fat __
plan __ pan __ pal __

Discrimination Between Long ā and Short ă

Draw a line under the right word.

1. Planes travel at a fast (rat, rate).
2. This morning there was frost on the window (pan, pane).
3. I went up in an air (plane, plan).
4. The policeman shot the (mad, made) dog.
5. The actor did a (tap, tape) dance.

e) TWO-VOWEL COMBINATIONS. The teaching of the most common two-vowel combinations (g*ai*n, s*ea*t, c*oa*t) has a place in the program of the retarded reader. Too much emphasis, however, should not be given to drill on the vowel combinations. As a pupil adds words to his sight vocabulary, he learns other sounds of this type, e.g., for the *ea* combination various sounds occur: *learn, great, head.* Vowel combinations like *ou* which has so many different sounds (*though, fought, rough, through*) need not be taught as such but rather in relation to new sight words. Some attention may be given to the most common sound of the various vowel combinations which the pupil meets most frequently in his reading materials. Exercises like the following may be used when they are needed specifically.

Pronounce these words:

train
maid
grain
tail
brain
faint
waiter
pail
mail
sailor

Fill in these blanks with other ai words.

______ ______ ______ ______ ______

______ ______ ______ ______ ______

From the individual lists, a group list may be drawn up on the blackboard or chart and recorded in pupils' books. Words that might appear in such a list are:

paintings
complain
raid
slain
explain
trail
refrain
attain
obtain
contain

Teaching Syllabication

When a pupil reaches a third grade reading level, he encounters an increasing number of words of more than two syllables. Word recognition techniques which he has already acquired are not adequate for his new needs. Some knowledge of syllables is necessary not only for purposes of word recognition in reading but also for the spelling of words used in writing activities. After some progress in written expression has been made, a knowledge of syllabication will aid a pupil in dividing a word which must be broken at the end of a line. Motivation for the study of syllables springs from the learner's awareness of the need for and the function of syllabication in his reading and writing experiences. It is a skill that is very valuable for many of the more advanced pupils in the special reading programs. Some who read at a fifth or sixth grade level have acquired many word recognition techniques but have not had sufficient training in syllabication. With the acquisition of skill in this area, their achievement in comprehension and in speed often increases rapidly.

a) INTRODUCING SYLLABICATION. Breaking a word into syllables is a skill that is difficult to acquire. It is developed gradually by the retarded reader as he meets words in context that lend themselves to syllabic analysis. In teaching syllabication, it is desirable to give attention first to compound words whose meanings are derived from their parts (A) and then to other compound words (B). Lists like the following can be drawn up by teachers and pupils and analyzed:

(A) airplane
fireman
moonlight
shipwreck
seashore
bluebird
outdoor
driftwood

(B) handsome
butterfly
hardship
understand
quarterback
overboard
instep
pocketbook

Next the pupils may be introduced to two-syllable words formed by the addition of a common ending. Words that may be used for teaching and practice are given here:

seeing
helping
going
flying
raining
started
needed
waited
sounded
hunted
warmer
shorter
taller
louder
faster
lightly
softly
slowly
swiftly
quickly

The syllable *a* at the beginning of a word is difficult for retarded readers and may be studied at this time if the teacher feels that the pupils need it. Practice on words like these is a valuable aid to word recognition:

ago
about
along
around
alike
among
alone
afraid
again
away

The syllabication of words with a double consonant is not difficult for pupils who have had experience in dividing compound words and two-syllable words with common endings.

The Same Consonant		**Different Consonants**	
dinner	apple	window	outline
puppy	sudden	after	breakfast
follow	battle	corner	welcome
better	offer	problem	almost
supper	summer	furnish	children

Pupils who are familiar with the preceding types of syllabication are probably ready for polysyllabic words. If, at first, words of the phonetic type are used, pupils may work out the pronunciation of any unfamiliar syllable by means of the sound-blending technique they have used for monosyllabic words.

potato
capitol
patriotic
conductor
independent
planetarium

In the next list, words are included that are not entirely phonetic. Some of them have common syllable combinations such as *ation* and *intro* which are recognized and pronounced as units rather than as two syllables.

automobile
graduation
television
introduction
paragraph
typewriting

Kottmeyer gives good suggestions for words that can be used with retarded readers in developing ability in syllabication. (See Appendix A, Section I, 20.) The word lists that have been given in this section and those recommended in the reference just mentioned can be adapted for use in developing many of the word recognition skills discussed in other sections.

As pupils participate in syllabication activities certain simple principles evolve. Attention may be drawn to them, but this does not imply the memorization of rules. Some of the learnings about syllables that will become evident are given here:

Every syllable contains a sounded vowel.

When a word has more than one vowel sound, it is broken into parts or syllables.

Sometimes a vowel forms a syllable by itself; e.g., a-mong; vi-o-lin.

Double consonants usually are separated; e.g., val/ley.

A consonant between two vowels usually is joined to the vowel that follows it; e.g., to/tal.

When the suffix *ed* is added to a word ending in *d* or *t*, it forms a separate syllable; e.g., fold/ed; plant/ed.

b) Activities for developing skill in syllabication. The following activities help pupils become aware of syllables:

(1) Listening to a word pronounced by the teacher in a natural manner in order to hear the parts or syllables. The pupil's syllabication of the word is checked with the dictionary or by the teacher who may wish to have the correct response shown on the blackboard. Variations in this exercise may be arranged.

> Words are presented to the group by pupils who have previously checked the syllabication. In accordance with the direction given, pupils' responses may take the form of: telling or writing the number of syllables heard; actually writing the word and dividing it into syllables; writing only the first syllable.

(2) Dividing compound words presented in printed form into their two parts—sun/shine.

(3) Classifying words in columns according to number of syllables.

One Syllable	Two Syllables	Three Syllables
let	after	afternoon

(4) Dividing polysyllabic words by drawing lines between syllables—re/mem/ber

(5) Adding prefixes and suffixes to root words—

*un*happy walk*ing* sleep*y*

(6) Using the dictionary to check one's own syllabication of a word.

5. Employing a Visual Approach

The visual approach is important in word recognition

This approach is helpful in discovering the identity of unfamiliar words. It is used in conjunction with context and phonetic clues and includes various degrees and kinds of observation. If efficient and effective guidance is to be given to retarded readers, it is necessary for the teacher to find out just what visual techniques each pupil has acquired and which of the essential ones he lacks. This calls for a consideration of both diagnosis and training in the area of the visual approach.

Diagnosing Weaknesses

As pupils read in their ordinary activities, many of their difficulties in using a visual approach are revealed. The two extremes of this approach to word recognition—superficial observation and concentration on details—are found in almost every group of seriously retarded readers. Superficial observation may take the form of guessing a word on the basis of either its general appearance or an outstanding characteristic. For instance, the general shape of the word *scissors* is long and rectangular whereas the word *run* may be enclosed in a comparatively short rectangle. A word like *telephone* with extensions above and below the base line is irregular in contour and is distinguishable by its uneven appearance. Guessing a word by means of an obvious feature is illustrated by the child who remembers the word *flies* because of its tall initial letters, or *look* by the two *o's* that remind him of eyes, or the word *build* because of the letters that extend upward and connote the meaning of the word.

Such visual hints if used along with context clues suffice at the beginning of a child's reading experience. As he advances beyond the initial reading stage, however, he meets an ever-increasing number of words more or less similar in appearance or in an outstanding detail, *three* and *there, went* and *when.* Although the rapid observation of obvious clues no longer meets his needs, the retarded reader often clings to this infantile method instead of advancing to the level of visual analysis which demands closer observation and finer discrimination. Cursory observation, however, is adequate for most of the word recognition needs of adults because of their years of contact with printed words and their habitual reliance upon context clues. It is, therefore, a method which is not discarded as pupils learn to read but one that is quite limited in use until some maturity in reading has been achieved.

An analysis of the teacher's list of pupils' errors will often reveal weakness in visual discrimination as well as in left-to-right directional attack. For example, the words miscalled by one pupil in a week included the following:

through for *thought*
mouth for *month*
felt for *left*
and for *said*

The teacher notices that the pupil seems to guess words on the basis of their general appearance or of a specific detail and fails to observe distinctive parts. In addition, the pupil appears to require training in focusing on the initial parts of words and in observing words consistently from left to right. In the same way, a teacher will often discover a single error in discrimination which occurs over and over in one pupil's miscallings. Perhaps it is a confusion of the visual appearance of the letters *m* and *n;* correction of a mistake like this may clear up many word recognition errors.

In contrast to the rapid, inaccurate observation of words just discussed, there is another type which also causes difficulty. Some retarded readers become so engrossed in a detailed study of a word that they have difficulty in seeing the word as a whole and in remembering the part of the selection they have just read. This may be due to an overemphasis on phonics and a lack of training in utilization of the context. Pupils who make an exaggerated study of a word or who observe words superficially probably have had little or no experience with two other aspects of the visual approach, namely, locating the elements of a word that are most useful in discovering its identity and studying the structure.

One more weakness in the visual approach found frequently enough among retarded readers to be mentioned here is the inability to substitute one consonant or vowel for another. For instance, a pupil who knows the word *right* and is acquainted with the consonant sounds should be able to recognize *night, light,* and several other words. The technique of replacing one letter by another to form a new word is a key to an ever-growing reading vocabulary and a source of great satisfaction to older boys and girls functioning at a low reading level.

In addition to the informal appraisal of visual techniques based on everyday reading materials and observation, a teacher may check directly for specific weaknesses by formal means. Special word lists may be used for this purpose such as those given in the section on the phonetic approach. For the recognition of these isolated words, a pupil cannot rely on contextual clues but is forced to reveal the visual and phonetic aids at his command. Standardized oral reading tests also are used for diagnosing word recognition difficulties and often disclose patterns of error for an individual or for a group.

Guiding Pupils in Developing Skill in the Visual Approach

The weaknesses and strengths discovered in the diagnosis of the visual approach indicate the type of training required by each pupil. For retarded readers with so many gaps in learning, it is important that time and effort be directed toward their specific needs.

In guiding children in attacking unfamiliar words, emphasis is placed on the analytic method rather than on word synthesis. The word to be examined is introduced as a whole; next, one or more parts are extracted for study and then the whole word is presented again. This procedure has replaced the older method of synthesizing individual phonetic elements and discovering the word thus formed. For all word study exercises mentioned hereafter, teachers are urged to use the analytic method. The visual analysis of words embraces several skills:

Noting general appearance
Seeing an outstanding detail
Detecting familiar parts
Finding small words within larger ones
Recognizing similarities and distinctive features

The first two require little discussion because many retarded readers have acquired these skills and rely on them almost exclusively. For the few who need guidance because of their extreme consciousness of word details, phonics is temporarily abandoned and emphasis is placed on building a sight vocabulary and on utilizing context clues. Each of the other skills will now be discussed.

a) DETECTING FAMILIAR PARTS. An important skill in the analysis of word forms is seeing a familiar part of a larger word, such as the base word *break* in un*break*able. Pupils in the reading project were trained to detect known parts of words taken from context; these words were either printed on the blackboard or in the individual's notebook. Each word was then examined and the familiar element underlined or delineated in some other way. The pupil was asked to think of other words in which the same known part appeared or to find them in his reader. He made his own list on which he indicated the base word. Similar lists were built cooperatively by groups of retarded readers who needed this kind of training.

After pupils had learned how to locate familiar word parts, they gained further skill and also increased their reading vocabularies by means of word-building exercises. For example, the word *appear* was placed on the blackboard and pupils were asked to add the various common endings—*s, ing, ed*. The new words were then printed on the blackboard or on individual lists. A pupil or the teacher suggested that *ance* be added to form a new word and *dis* prefixed to the base word. Thus retarded readers learned to associate the printed forms of whole words and word parts with the spoken forms already familiar to them. Exercises that develop skill in seeing word parts are included in the discussions of discrimination and syllabication that follow. Helpful exercises are suggested also in the section entitled *Building a Meaning Vocabulary.*

b) FINDING SMALL WORDS. Visual analysis of a word may reveal the presence of a small word within the longer one. This discovery is most valuable when the little word is useful in working out the pronunciation of the whole word and is related to its meaning; e.g., *airmail.* It is advisable generally to conduct oral rather than silent exercises in developing this skill. Locating the short word sometimes hinders the child in his attempts at word recognition, for example, focusing on *eat* or *at* in *great*, or *his* in *this* is confusing because of the differences in sound. Therefore, indiscriminate assignments that require the finding of small words within long words should never be given.

c) RECOGNIZING SIMILARITIES AND DISTINCTIVE FEATURES. Among retarded readers there was found a great lack of skill in recognizing the distinctive features of words. For most retarded readers, a few individual lessons on seeing the distinctive features of words they had confused yielded satisfactory results. When a pupil made so-called careless mistakes in word recognition, the time used in showing him the difference between the word as it appeared in the reading material and his miscalling of it was indeed worth while. For instance, a pupil read the word *present* as *president*. The teacher printed on the blackboard or on the pupil's paper the two words *present—president* and had the pupil look at each word and say it syllable by syllable or sound by sound if necessary. Attention was drawn to the differences between the two words, in length, in number of syllables, in the number of letters that extend above the line, in the presence or omission of the dot over a letter. Thus the details of the word *president* that differentiate it from the word *present* were highlighted. Similarly, pupils were taught to compare words frequently confused by retarded readers:

except—expect
want—wait
what—that
where—there
quite—quiet
them—then
palace—place
dog—boy

This kind of instruction was followed by word analysis assignments that called for the particular type of visual discrimination in which the individual needed practice. Observation was sharpened through exercises that required the comparison of one word with another similar in some part. For example, in order to complete each sentence that follows, pupils were forced to give attention to the element that was different, that is, the middle part of each of the word choices.

The new boy has a stamp collision
collection

I like to swim in warm winter
water

Suggestions for Exercises in Visual Discrimination

Exercises found helpful for retarded readers in the development of various types of visual discrimination are given here. The teacher, of course, first calls attention to the difference between the words confused.

Reversal of Whole Word

Oral Directions

Copy the word saw from the sentence on the blackboard.
Draw a line under the first letter of the word saw.
Give the first letter sound in the word saw.
Write the first letter of the word saw.
On page _____ in your book find a sentence with the word saw. Read it to me.

Draw a line under the words that mean "has seen."

saw was was saw was saw

How many words can you say without a mistake?

saw	won	no	pot	tap
was	now	on	top	pat

Choose the correct word.

1. The boy (was, saw) a good moving picture.
2. We (now, won) the game.
3. Supper is (on, no) the table.
4. I like to spin my (top, pot).
5. She is a (pat, tap) dancer.

Partial Reversal

Fill in the right word in these sentences.

there three

1. The ________ boys went fishing.
2. Put your library books over ________.
3. Can you name ________ big league baseball teams?
4. We knew ________ would be many pupils absent on the holy day.
5. The shop teacher sent ________ boys for the wood.

Configuration

Draw a line under the word that makes the sentence right.

The circus (house, horse) danced.
The president lives in the White (Horse, House).
The policeman rode a beautiful (horse, house).
Please come to my (horse, house) for dinner tonight.
Black Beauty is a story about a (horse, house).

Riddles	Put a box around the right word.	
1. It has a door.	horse	house
2. It can jump.	house	horse
3. It eats hay.	horse	house
4. We live in it.	house	horse
5. It has four legs.	house	horse

Draw a line under the word "horse"	Draw a line under the word "house"
horse	house
horse	horse
house	house
horse	house
house	horse

Medial Vowels

Draw a line under the word that makes the sentence right.

1. Tom want went to another junior high school.
2. What game do you want went to play?
3. We want went to play basketball tomorrow.
4. The girls want went to their sewing class.

Draw a line under the word that means "has gone."				Draw a line under the word that means "to wish."			
went	want	went	want	want	went	went	want
want	went	went	went	want	want	went	want

Many different exercises should be given for overcoming weaknesses in the following types of discrimination. If there is not clear perception of word beginnings, there is slight chance of proper identification of words. Similar exercises may be given to force attention to middle and final parts of words.

Initial Part of Word

Oral Directions

1. Draw a picture of a baseball bat.
2. Write the word bat under it.
3. Draw a picture of a hat.
4. Write the word hat under it.
5. Draw circles around the letters that are not the same in these words.
6. Draw a line under the word that tells something you wear on your head.

Confusion of Letters

Write the word that is missing in each sentence.

(but, put)	The boy________his books away.
(month, mouth)	In what________is your birthday?
(bug, dug)	The squirrel________a hole for his nuts.
(gum, gun)	John gave me some chewing________.
(kid, hid)	Mother________our Christmas presents.

Omission and Insertion of Letters

Can you say these words?

Be careful of the tricky letter!

tap	tip	sick	say
trap	trip	stick	stay
bed	tick	food	pay
bled	trick	flood	play
pace	back	soon	gay
place	black	spoon	gray

X. Developing a Meaning Vocabulary

A large number of the pupils selected for special reading instruction in the junior high school project had inadequate vocabularies that limited their power to get meaning from what they read. Many of them had fair command of word attack skills and could apparently read most of the words they met in the books they selected. But a little questioning often revealed that their ability to sound out a word was no guarantee that any meaning was attached to it. A child who could pronounce "boon" or "pelt" correctly might have no idea what the words meant. When he did not have fairly accurate meanings for the words he seemed to recognize, he could not understand what he read. He was in the same position as a competent reader who can read aloud a sentence in an unfamiliar foreign language without having any idea what it says.

For the pupil in the earliest stages of reading, vocabulary difficulties were less obvious because most readers on the easiest levels use familiar subject matter, many illustrations, and a simple vocabulary. Since work with nonreaders on the lowest levels was highly individualized, the teacher could explain word meanings as needed. But the pupil who could read independently on a third year level or higher met many new words on his own. If he read a certain popular book on boats intended for a *third year level,* he met the following words: shallow, sturdy, midstream, lounges, dugout, merchant, warriors, sullen, route, clipper, paddlewheel, keelboat, fuel, harbor, packet, modern, launched, hull, compass, constant, prowl. Furthermore, in material about more unfamiliar subject matter—prehistoric times or adventure in the Far West—the vocabulary difficulties became even greater.

Since meager vocabularies were strikingly prevalent among retarded readers, it was important to help them expand their stock of word meanings and to give them techniques for coping with new words independently. They also needed better understanding of words assumed to be familiar to them since they often had only vague ideas of the meaning of relatively common ones. It was felt that extension of their vocabularies should not be left to chance, but should be an important part of a reading program. Both incidental and direct approaches were used.

The comparative merits of these two approaches have been the subject of a good deal of controversy. Both types are effective and should be used to the fullest extent possible. The discussion of specific approaches given below deals with suggestions for the following:

Extending children's experiences as a source of new concepts and vocabulary

Encouraging wide reading

Making children word-conscious

Encouraging the use of the dictionary

Teaching the new words of a reading selection

Establishing independence in finding meanings from context

Making a direct study of words

1. Extending Children's Experiences as a Source of New Concepts and Vocabulary

Many of the retarded readers who were studied during the junior high school project had a meager store of experience. They had grown up in environments providing few cultural advantages and little opportunity to extend their vocabularies. Some of them had spent most of their lives within an area of half a square mile.

The relationship between a rich background of experiences and a good vocabulary is a positive one; it is desirable, therefore, to provide illuminating group experiences for such pupils as a means of vocabulary enrichment. Perhaps the surest way to vocabulary growth is in the informal discussion that takes place before, during, and after a group experience. Key words and unfamiliar ones should be explained and pupils should be encouraged to use them in discussions and reports. Children can express their ideas more clearly when their concepts are clear, and the new vocabulary growing out of shared experiences and ideas is sure to have more vivid and accurate meaning than that obtained in formal word drills. A class that has visited behind the scenes of a department store in order to observe its workings acquires a large number of accurate concepts and new word meanings in the course of planning and carrying out the trip and engaging in follow-up activities. Related reading is more easily comprehended because the vocabulary is already familiar.

Vocabulary can be enriched also through indirect experiences. Audio-visual aids—pictures, film strips, slides, sound and silent movies, radio, and television—have become abundant and furnish the basis for explanation and discussion of important or new words.

2. Encouraging Wide Reading

The vicarious experiences provided by wide reading of interesting books are another important source of new word meanings. Unfortunately, reading for recreation is often shunned by poor readers who regard reading as a chore. They therefore miss the frequent casual contact with words that helps deepen and enrich meaning. In the junior high school project, especial care was expended on the choice of materials provided for independent reading. Publishers' lists were scrutinized for books that were high in interest for the age group and yet had a level of difficulty sufficiently low to allow fluent, pleasurable reading.

3. Making Children Word-Conscious

It was found that the pupils in the reading program could be stimulated to a lively curiosity about words and a desire to acquire a wider vocabulary. The enthusiasm of the teacher was an important factor. Pupils had fun in discussions in which they vied with each other in suggesting more precise substitutes for overworked words like *nice, awful,* and *interesting.* They learned to be curious about unfamiliar words and to bring to class new ones heard in radio or television programs.

They kept a record of new vocabulary acquired during the pursuit of hobbies, or in art experiences, or in the development of a unit of work. Colorful words, idioms, and striking expressions were also included. The words were listed on the bulletin board or on charts by the teacher; the pupils wrote them with illustrative sentences in individual notebooks or in card files like the following:

Theme — Television

Front of card	Front of card
dial	screen
Back of card	**Back of card**
Tom turned the dial to Channel 5.	Our new set has a seventeen-inch screen.

The retarded readers in the junior high school project were greatly interested in puzzles and word games. These often appealed to pupils who had a brief attention span where books were concerned. Puzzles were mimeographed for individual use or put on charts or blackboards for group use. Children with special interest or ability were encouraged to construct puzzles to be used by other children. Nonconsumable cross word puzzle material as well as the ordinary kind is available.

Fill in the missing letters.

an animal b________

something to sleep in b________

something to sweep with b________

a yellow fruit b________

4. Encouraging the Use of the Dictionary

Dictionaries and glossaries are valuable aids in arriving at a precise meaning, and their use should be encouraged. Pupils frequently avoid the use of dictionaries because the only ones available to them are too hard for them. Excellent ones on very easy levels were used in the junior high school project and the pupils were taught how to use them. These had easy vocabularies and large type. Picture dictionaries in color were used with the poorest readers. When possible, each child had a dictionary or easy access to one.

A glossary is included in many basic readers and is a useful introduction to dictionary study because it gives only the difficult words in the book in which it appears. Pupils who have good control of techniques for looking up words efficiently are more likely to make use of dictionary aids than those who flounder about. The development of such techniques is discussed in the section on special study skills, page 102.

5. Teaching the New Words of a Reading Selection

Frequently, direct teaching of word meanings was effective with pupils in the reading groups. Reading assignments that contained significantly new concepts or vocabulary were always better understood if the concepts and vocabulary were clarified carefully before silent reading took place. However, new words were never taught in isolation, but always in meaningful context, as during the introductory discussion of a story. It cannot be stressed too strongly that drilling on lists of isolated words to develop word meanings is useless for retarded readers.

In planning directed reading activities, the teachers were careful to choose a selection that did not present too many new words at a time. They then looked over the selection for words or expressions that were probably unfamiliar to the pupils and needed to be specially presented. Manuals and workbooks issued by publishers to accompany readers are helpful in giving ideas for presenting difficult words in stimulating ways.

Clarifying new concepts and vocabulary before reading takes place is significant also to the teacher of subjects other than English. It is essential in those subjects to anticipate difficulties in an introductory discussion in much the same way as the reading teacher does. Each content field has its own technical vocabulary. Especially in such fields as science, mathematics, and social studies, concepts must be thoroughly developed if the words representing them are to be clearly understood. Many children can perform the processes of multiplication and division without knowing what *multiplication* and *division* really mean. The subject vocabulary should be introduced gradually and reinforced by diagrams, pictures, and other visual aids that are available. For retarded readers with meager vocabularies, it is more advisable to teach thoroughly the meaning of a few technical words than to require verbatim recitations of a host of vaguely understood definitions.

6. Establishing Independence in Finding Meanings from Context

In the Bureau's work, it was found that retarded readers were likely to ignore words that were unfamiliar and to make little effort to determine their meaning in any of the numerous ways that efficient readers employ as a matter of course. As a result, these poor readers were often satisfied to gain from reading matter only a hazy and inaccurate notion of what the writer intended to say. These children were in need of techniques that would enable and encourage them to deal successfully with words that were completely unfamiliar or with known words that were used in unfamiliar ways. They often learned to become independent in their search for meaning.

The technique most useful to good readers is that of determining word meaning from the context; that is, from the setting in which the word is found. Poor readers profit from specific instruction in the use of contextual clues, since that is the quickest way and, for words with several meanings, like *count*, the only way in which meaning may be determined. On the earliest reading levels, the context is used chiefly for help in recognizing the form of a word and pronouncing it, because the pupil usually knows its meaning; but later on the pupil increasingly employs contextual clues to understand word meanings.

The importance of skill in using contextual clues becomes obvious when one considers that the words *scurry, horizon, wharf, gravel, desperate, descended, stallion, drifting,* and many others of equal difficulty occur in the third reader of a well-known basic series. In a directed reading activity the teacher helps with such words. When the pupil, however, reads this book independently, he can understand most of these hard words if he uses the aid of context. In a well-written reader, the meanings are usually clearly indicated in sentences similar to this:

The rat scurried to its hole when it heard the cat coming.

Some Types of Contextual Clue[1]

(1) A common and very helpful contextual clue that might well be used by more writers of books for children is the *definition* that occurs within the same sentence. The definition may take various forms similar to these:

The sabot or wooden shoe is worn by some French farmers.

Polaris — the North Star — is one of the best known stars.

The pup, which is the baby seal, can be seen on the rocks.

Condiments, such as cinnamon and pepper, were once very expensive.

(2) In the above examples, the meaning of the unfamiliar words was made clear by words or phrases that were more or less synonymous. Some-

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[1] This is discussed more fully by Constance McCullough in "The Recognition of Context Clues in Reading," *Elementary English Review*, 22:1-5, January, 1945.

times *an antonym* or *a contrast* may point out meaning as in the following:

Some parts of the lake were deep; others were shallow.

The mouse squeaked in a tiny voice, but the lion bellowed.

(3) The child's own *experience* serves to help him, as in the following:

In order to free the boat he severed the rope with his knife.

In the experience of the child, a knife is used for cutting. The phrase "free the boat" also helps give meaning to "severed."

(4) Similes are sometimes a guide. The meaning of *droned* is suggested in a sentence like this:

The speaker's voice droned on like the humming of a bee.

(5) The presence of *illustrations*—pictures, diagrams or maps—helps illuminate word meaning.

In order to convince pupils of their ability to use context clues, a paragraph or two may be written on the board. Blanks are substituted for certain rather obvious words like this:

Sam used to take a good lunch with him on his hikes. He usually made some ________ of fresh bread and peanut butter or meat. Then he liked a tomato or two and some ________ like peaches or cherries. He knew that after a ________ in the woods he would have a good appetite.

The pupils are then asked to suggest what words have been omitted and to give reasons for their choices. As was pointed out in the chapter on word recognition, this study of context is valuable in developing comprehension.

The same technique should then be applied to a paragraph that has a few difficult words. Words should be chosen for which very clear clues are present, so that wild guessing may not be encouraged. The paragraph is written on the blackboard with the difficult words underlined. Pupils read the paragraph and then try to give the meaning of each word by using its context. After discussion of "guesses" by the children, the dictionary is consulted to check the accuracy of the guesses. Such practice should lead pupils to use clues and combinations of clues habitually in their independent reading. It is important that they learn that meaning clues should be hunted out before the dictionary is used. Reading should be interrupted to consult the dictionary only in cases where clues to an important word are so vague that the meaning of a passage is not clear. Pupils with meager vocabularies who are faced with the problem of looking up words in the dictionary several times on each page are likely either to regard reading as a laborious and unattractive chore or to skip over all unknown words and be satisfied with loose approximations of the meaning of what they read. In some circumstances, teachers find it advisable to give pupils the meanings of words as needed. Teacher judgment plays an important part in deciding when to do this, so that pupils become neither discouraged on the one hand, nor over-dependent on the other.

Simple words with multiple meanings like *net, arm, bear, can,* were an important source of confusion to the poor readers in the Bureau project. They had not learned to use the context as a guide to meaning and were not sharply aware that one word might have many meanings. The pupil who knew about a candy *box* or *boxing* gloves was likely to be bewildered by:

The sentry stood in his box.
The box stayed green all winter.
The driver leaped up to the box.

Exercises like the following proved successful in calling pupils' attention to contextual clues to meaning:

Next to the phrase in the first column, put the number of the phrase in the second column that finishes the sentence correctly.

I went to the fair	3	1. when he put the player out.
The umpire was fair	__	2. we shall go on a picnic.
If the weather is fair	__	3. and ate popcorn.

Double Talk

Some words look and sound alike but have more than one meaning.

1. I like to skate.
2. He looks like his father.

What is the meaning of like in the first sentence? In the second? Finish these sentences to show that you understand the meaning of the underlined word.

1. A bat flew ________________________
   Tom bought a new bat and ________________
2. The child's face is ________________________
   Face the class when ________________________
3. Please hand me ________________________
   My hand is ________________________
4. What kind of candy ________________________?
   The kind man ________________________

Read these pairs of sentences that use the same word. Find the underlined word in Column 1 that means the same as each word in Column 2 and write the number.

1. Fred saved ten dollars.	rescued (2)
2. The boy scout saved his friend's life.	
3. The movie was over at nine o'clock.	across
4. Jump over the puddle.	
5. The rest of the class is reading.	be still
6. Try to rest after lunch.	

7. Making a Direct Study of Words

Many of the retarded readers enjoyed uncomplicated exercises and games that dealt with uses of words. Exercises, however, were not used to the virtual exclusion of techniques previously described, but in moderation. Motivation was provided to make such study a pleasant and profitable experience rather than a boring routine to be gone through simply because it was assigned.

It was found that this kind of study was most effective when the approaches were varied. The exercises below are some of the many kinds that were used. Similar ones may be found in various reading workbooks. (See Appendix B.) With a few expections, which are indicated, those given here can be adapted to use for any reading level. They can be used as the basis for teaching and as practice material for independent work by the pupil. In the oral discussion preceding independent practice, some groups will need more explanation and samples of procedure than others. The blackboard is a useful aid for this presentation.

Oral and written exercises can be used to reinforce meanings through:

- Classifying words
- Using synonyms and antonyms
- Understanding question words
- Studying common prefixes and suffixes
- Studying the origin and development of word meanings

a) CLASSIFYING WORDS. An effective way of helping the child to a broader vocabulary is to provide him with the opportunity to examine meaning by considering the relationships between words. In these exercises, word meanings are considered in order to determine in what categories they belong or to find the relationship of part of an object to its whole. Both simple and more advanced vocabulary are used in order to show that the exercises can be adapted to various levels of difficulty.

Word Puzzle

Cross out the word which does not belong in each list. In Group 1 you will cross out the word *made*.

1.	2.	3.	4.
climb	whisper	jacket	elephant
walk	sing	house	squirrel
jump	play	glove	sweater
made	talk	stocking	tiger

5.	6.	7.	8
scissors	above	pitcher	quarter
needle	later	umpire	nickel
egg	around	catcher	dollar
thread	below	shortstop	money

9.	10.	11.	12.
airplane	candy	hunter	milkman
radio	bitter	fisherman	butcher
movies	sweet	shoemaker	cousin
television	sour	trapper	carpenter

Cross out the words that don't belong.

1. People: man, girl, book, boy, dog.
2. Food: ink, egg, milk, spoon, bread.
3. Money: dollar, table, quarter, dime, chair.

Match the "part" to the "whole." Write the correct number from Column 1 next to each word in Column 2.

1. branch	airplane 5
2. page	eagle ______
3. cloud	tree ______
4. feather	book ______
5. propeller	building ______
6. finger	
7. room	

Add a word that belongs to each line.

1. sister	mother	uncle	______
2. weeks	minutes	hours	______
3. cherry	peach	apple	______
4. window	wall	door	______

Write these words under the correct headings below:

stadium, inning, infection, umpire, thermometer, champion, doctor, bicycle, medicine, nurse, hockey, goal, dribble, temperature, skates.

Hospital Words	Sport Words
____________	____________
____________	____________

b) USING SYNONYMS AND ANTONYMS. A study of synonyms and antonyms leads not only to deepening of meaning but also to flexibility in oral and written expression. While it is undesirable to have pupils learn a word-for-word definition of *synonym* and *antonym*, frequent use of the terms will add them to the child's vocabulary. The exercises with synonyms can also be used for antonyms and vice versa. Exercises of this kind may be used either with or without the dictionary.

Words That Are Synonyms

Match the synonyms, which are words that mean the same. Choose the word from Column 2 that is the synonym of a word in Column 1 and write it in the correct space.

1.	2.
below ____________	bring
brook ____________	sure
certain ____________	crawl
several ____________	some
creep ____________	show
	under
	stream

Which Word Means the Same?

Underline the word in the second column that means the same as all of those in each group in the first column.

I		II
speech		people
talk	may mean	book
words		language
merry		restless
happy	may mean	joyous
gleeful		loud

Comparing Words

Underline each pair of words that mean the same.

sad	happy
love	like
loud	soft
close	shut
allow	permit

Antonyms

In each line below find a word which means the opposite of the first word in the line. Draw a ring around it.

little: part, big, house
short: whole, hear, long
dirty: clean, cold, grow
found: let, lost, hard

How Else Can You Say It?

There are often many ways of expressing the same idea. From this list of words choose those which will complete the sentences without changing the thought of the first sentence in the group.

sprang
cried
found
ran
yelled
hastened
leaped
touched
shouted
needed
hurried
bounded

1. Robin Hood jumped across the stream.

Robin Hood ____________ across the stream.
Robin Hood ____________ across the stream.
Robin Hood ____________ across the stream.

2. "Strike one!" called the umpire.

"Strike one!" ____________ the umpire.
"Strike one!" ____________ the umpire.
"Strike one!" ____________ the umpire.

3. The fireman rushed into the burning house.

The fireman____________into the burning house.
The fireman____________into the burning house.
The fireman____________into the burning house.

c) UNDERSTANDING QUESTION WORDS. The retarded readers sometimes answered questions incorrectly because they did not understand what was being asked. Often they actually read the question word incorrectly, so that "how" became "who" and "were" became "where." These children needed practice in distinguishing between the words in print and had no trouble with the word meanings when the confusion was cleared up. Sometimes, however, pupils pronounced question words correctly but did not clearly understand their meaning. Exercises like these were useful for developing the meaning of such words:

Who? When? Where? How?

Here are some parts of sentences. Each part answers one of the questions above. Next to each one write the correct question word.

1. At home ____where____
2. The two girls ________
3. Next year ________
4. On foot ________
5. Very slowly ________
6. In the park ________
7. To the baseball game ________
8. With all his might ________
9. During the storm ________
10. On the sidewalk ________

Underline the words that tell where.

outside
tomorrow
policeman
cellar
downstairs
here
quickly
center

Underline the words that tell when.

early
since
mountain
sky
January
doctor
summer
within

Underline the words that tell who.

uncle
between
afternoon
clown
woman
haystack
princess
captain

Put the numbers of the questions next to any sentence that contains an answer. Some sentences may have more than one number.

1. How many? 2. When? 3. Where? 4. To whom?

__2, 4__ David gave his stamp collection to his sister when he was fifteen years old.

______ They arrived at the station a minute too late to catch the train.

______ All the children except Anna and Jerry want to go to the park.

d) Studying common prefixes and suffixes. A vocabulary can be extended through discussion of the most common prefixes and suffixes and the changes that they effect. This kind of word study is suitable only for pupils who are not very retarded in reading. For pupils on the lower reading levels, such study should be avoided except as it arises in the development of word attack skills. In any case, meanings of word parts should be developed in informal discussion and formal memorizing should not be required. According to a study made by Stauffer,[2] the most common prefixes are:

ab (from)
ad (to)
be (by)
com (with)
de (from)
dis (apart)
en (in)
ex (out)
in (into)
in (not)
pre (before)
pro (in front of)
re (back)
sub (under)
un (not)

Some suffixes which merit special attention are *tion, er, y, al, ous, ment, ful, less.* The meanings of suffixes do not appear, in general, to be so constant as those of the prefixes.

The attention of pupils can be drawn to the changes in meaning of complete words, as in:

happy	unhappy
read	reread
farm	farmer
help	helpless
improve	improvement

Substituting a Phrase

Find another way of saying the underlined word without changing the rest of the sentence. You may use more than one word to explain.

Sample: I liked the story so much that I reread it.
I liked the story so much that I read it again.

1. The people were unfriendly to the stranger.
The people were ____________ to the stranger.

2. The dentist tried to make the drilling painless.
The dentist tried to make the drilling ____________.

---

[2] Stauffer, R. G. "A Study of Prefixes in the Thorndike List to Establish a List of Prefixes That Should Be Taught in the Elementary School." *Journal of Educational Research,* 35: 453-58, February, 1942.

We Can Build Words

Directions: In each column write the prefix before the words. Notice how the prefixes change the meaning of the words.

un	re	dis
happy	write	agree
lucky	read	courage
even	tell	appear
true	fill	like

Directions: Each sentence below has a word after it. From the prefixes listed above add one to the word which will make the sentence correct. Then write the word in the blank space.

1. Soap and water make dirt __________. (appear)
2. We do not want to play this game with __________ sides. (even)
3. Please __________ the book after you have finished it. (place)
4. I do not believe that story because it is __________. (true)

We Can Build Words

Directions: In each column write the suffix after the words. Notice how the suffixes change the meaning of the words.

ful	ly	ment	less
wonder	slow	improve	pain
help	quick	agree	help
care	kind	enjoy	sleep

Directions: Each sentence below has a word after it. Put the word in the blank space and if necessary, add one of the suffixes to the word to make the sentence correct.

1. The children had a ______________ time at the circus. (wonder)
2. You will have to move ______________ if you want to be on time. (quick)
3. The storm left many families ______________. (home)
4. The ______________ in his work pleased him very much. (improve)

e) STUDYING THE ORIGIN AND DEVELOPMENT OF WORD MEANINGS. Children can be made sensitive to and curious about words by a lively presentation of English as a constantly changing language. Archaic expressions like *methinks* or *betide* were once in common use. New inventions, human experiences, the slang of teenagers contribute new words, some of which become a permanent part of the language. The origin and meaning of common idioms are also worth exploration. Very retarded readers also enjoy this kind of activity if it is largely oral.

In the following exercise, pupils are to distinguish between outdated and recently coined words.

Today's or Yesterday's?

Put these words in the column in which they belong:

jazz, rayon, surrey, betide, television, plastic, maiden, zipper, trundle-bed, helicopter, radar, lad.

	Today's	Yesterday's
Sample:	jazz	surrey

The Animal Kingdom

Some of our expressions have come to us from the animal kingdom. A few are given below. Can you fill in the missing words?

as strong as an ________________

as wise as an ________________

as stubborn as a ________________

as quiet as a ________________

as sly as a ________________

as busy as a ________________

Can you add other "animal expressions" to this list?

bear hug
monkey business
horse sense
lion hearted
fish story

Idioms

Idioms are expressions that don't mean exactly what they say. In fact, using their exact meaning gives humorous results!

See if you can underline the meaning that really shows what the idiom means.

1. Bob caught her eye across the room. Did he
   - a) shut the window?
   - b) throw it back?
   - c) exchange glances with her?
2. During the lesson his attention wandered. Did he
   - a) walk around?
   - b) lose interest?
   - c) take notes?
3. The famous movie actress dropped out of sight. Did she
   - a) hurt her ankle?
   - b) become forgotten?
   - c) sink through the floor?

Match Mates

Each phrase underlined in Column 2 means the same as an idiom underlined in Column 1. Match each idiom with its meaning as in the first box.

Column 1		Column 2
1. No one liked Jim because he always went around with a chip on his shoulder.	c	a. I went home by the quickest way.
2. Because he was in a hurry he took a short cut through the woods.	☐	b. The mother scolded the child for playing with matches.
3. Mother was so angry at the delivery boy that she gave him a piece of her mind.	☐	c. It was clear from the way the boy acted that he was looking for a fight.

The importance of oral practice in building meaning vocabularies cannot be stressed too much. This is especially true for the most retarded readers who have not yet acquired much of a reading vocabulary. The pupil should be encouraged to use his new vocabulary in daily speech and in creative writing.

The development of a meaning vocabulary should not be regarded as a separate phase of reading instruction. The enrichment of vocabulary is inseparably bound up with the other aspects of reading such as word recognition, general comprehension, and the pupil's own background of ideas.

XI. Improving Comprehension

It has already been pointed out that when a pupil enters the junior high school he finds that he is expected to be able to use reading as a major tool for learning. Good readers can do so, but many poor readers now reach the seventh grade who formerly would have been held back in the elementary school. Hence, both teachers and poor readers feel disappointed and frustrated when the latter fail to get meaning from reading *Julius Caesar* or an explanation of what [illegible] is.

1. Some Factors That Cause Poor Comprehension

Poor comprehension may be due to a variety of factors

Before a remedial program is begun, it is important for teachers to find out why a child does not understand what he reads. In the Bureau project, an attempt was made to determine what general factors were responsible for the poor comprehension of each pupil selected for instruction. In each case, one or more of these factors was found to be involved:

a) An inadequate background of experiences. This factor was discussed on page 80. When the child's understanding is limited by a narrow field of experience, it is advisable to:

Enrich his background of ideas by providing him with a variety of direct and indirect experiences.

Encourage him to read material of many kinds. A variety of easy materials should be on hand in the classroom.

Precede silent reading activities with explanations and discussions of difficult concepts that he is to meet.

b) A narrow meaning vocabulary and a poor language background. The poor readers who had little opportunity to hear good English language patterns at home sometimes had difficulty in understanding what they read unless it was written in the simplest style. This was true not only of bilingual homes, but also where English was the only language. There is a need for developing good oral language in both the elementary and junior high schools, especially in the primary grades where formal book reading can be deferred. Pupils who have an inadequate language background need many opportunities to speak and listen to good English.

c) Lack of efficiency in using techniques for recognizing unfamiliar words. Constant interruption of the flow of reading to puzzle over words interferes with thought getting. Many pupils, even those who achieve fourth or fifth year scores on achievement tests, need practice in word recognition skills.

d) Verbalizing — the ability to read material aloud glibly without having much idea of what it means. Verbalizing may be the result of previous overemphasis on mechanics or on oral reading with neglect of thought getting. Another effect of overemphasis on oral reading was voiced by an anxious seventh-grader who recognized her own symptom: "I can't understand what it means unless I hear myself say it out loud."

e) Reading everything too fast or too slowly. In the junior high school project it was noted that some pupils had developed the habit of reading all material quickly and superficially, no matter how difficult it was or what their purpose in reading was. Others always read slowly and painstakingly, even when they wanted only the gist of an easy selection. The child's deficiency was discussed with him to be sure that he understood the goal toward which he needed to work. When he habitually read too fast, the teacher gave him exercises which required accuracy in noting details and minor points. The over-careful child needed an abundance of easy interesting material to develop fluency and also profited from exercises which he read quickly to get the general significance.

f) Failure to develop an attitude of demanding meaning from reading. Many of the retarded readers read passively, satisfied with any meaning they got without any attempt to dig further. Others read with wandering attention and were easily distracted by random thoughts or slight classroom incidents. Lack of concentration is sometimes a symptom of emotional difficulty; in many children, however, it may be evidence that they have never developed interest in reading. For independent reading, these children especially need easy, satisfying material—about their interests and hobbies, or perhaps about adventure. In directed reading activities, children concentrate more easily when thought-provoking questions are assigned in advance of silent reading.

g) LACK OF TRAINING AND PRACTICE IN SPECIFIC COMPREHENSION SKILLS. Often it was found that children had been given practice only in answering questions about specific details or in reproducing a simple story orally. It was obvious that such a limited approach to getting meaning was inadequate for many of the reading jobs the child needed to do. He sometimes had fair control of the mechanics of reading, but he was in need of practice in specific comprehension skills.

The teacher should be on guard against assuming that poor comprehension always calls for remedial teaching. A pupil may fail to comprehend because the books he is asked to read are too hard for him in general. This is, of course, very common. It cannot be stressed too strongly that children must be supplied with materials they are able to read. When materials are too difficult, pupils abandon the effort to get meaning. This is true not only in reading activities but also in content subjects. If Johnny can read only stories on a maximum fourth year level in the reading room, he surely cannot understand a textbook written on a seventh year level in the science or social studies room. In the junior high school project, improvement in reading frequently went unrecognized by teachers of other subjects. A pupil whose reading score had gone from 3.5 to 5.5 could still not read an eighth year textbook and, to the casual eye, might appear to be as retarded as ever.

2. Improvement of Comprehension Through Training in Specific Skills

The growing variety of educational experiences in which the child is expected to use reading as a tool has made teachers more than ever aware of the importance of developing comprehension skills. The child who must solve a mathematics problem, or prepare a concise report, or defend a point of view, must be able to do more than passively read the content of a selection. He must be able to do what McKee calls "the scratching and clawing that is often essential to arriving at an adequate understanding of the meaning intended by the writer." (Appendix A, Section I, 22, p. 135.) Many children have no idea of how to "scratch and claw" for meaning. Consequently, we find the pupil who, faced with reporting on the gist of an article, copies verbatim portions of it—or the pupil who plods through all reading matter in the same way, no matter what his purpose or the type of material.

Repeated urgings to the child to read more carefully have little effect, and will probably not develop in him that automatic mental self-checking device that good readers impose on themselves. He needs direct instruction and practice in specific techniques that will enable him to read thoughtfully. Even in his earliest reading, the child's attention should be directed to a vigorous search for meaning. On the lowest reading levels he can learn to interpret pictures, follow simple written directions, anticipate what comes next in a story, draw pictures to illustrate what he has read, make up titles for stories, tell the most important events, or find details of color and size. Systematic development of comprehension skills not only gives the retarded reader competence in those skills, but more important, brings about greater accuracy and deeper understanding in all his reading. The gradual development of these abilities is very important.

Comprehension skills may be analyzed in various ways

There is wide agreement that fluent oral reading is not an assurance that any depth of comprehension has been attained. On the other hand, there is a good deal of variance in the conclusions of authorities as to what comprehension really is. Specialists on the subject of reading have suggested lists of comprehension skills that are very different as to number and variety. This difference can be seen in the types of comprehension response which well-known standardized tests try to measure. The examples below show only a few of the many ways in which reading comprehension has been analyzed.

Iowa Every-Pupil Tests of Basic Skills[1]
Test A, Part I: Reading Comprehension

Skills Involved in Paragraph Comprehension:

1. To recognize the main idea or topic of a paragraph.
2. To select the main purpose of a paragraph.
3. To grasp an idea not explicitly stated in the paragraph.

Skills Involved in the Location and Understanding of Details:

1. To recognize and understand an explicitly stated fact.
2. To recognize and understand implied facts and relationships.

Skills Involved in Organization of Ideas:

1. To recognize common elements in incidents or paragraphs.
2. To select main co-ordinate ideas.
3. To select co-ordinate ideas which are subordinated to a given idea.
4. To recognize proper time sequence.
5. To recognize the common element in two subtopics and select a third subtopic co-ordinate with the first two.

Skills Involved in Grasping Total Meaning:

1. To draw conclusions from an article.
2. To select the best title from given titles.

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[1] Examiner's Manuals for Test A—Elementary; Advanced. Boston: Houghton Mifflin Co., 1945, p. 12; p. 16.

The Shank Tests of Reading Comprehension[2]

1. Answering a direct question on content details.
2. Answering an implied question on content details.
3. Answering an implied question on content meaning as a whole.
4. Determining whether or not the contents stated a given idea.
5. Selecting words or thoughts to which given words refer.
6. Determining whether given statements are true or false.

Gates Basic Reading Tests
(See Appendix A, Section I, 13, p. 451)

1. Reading to get the general significance or main ideas in passages.
2. Reading to see or predict circumstances or evidence implied by but not given in the passage.
3. Reading for precise and exact understanding of what is given, as in the case of reading directions.
4. Reading to note details.

The plan used in the Bureau project is discussed in the following pages. It was developed for usefulness in teaching rather than testing. Many of the items overlap or might be listed in more than one category. It is certainly not intended that the list be followed in sequence for teaching purposes. Neither is it intended that the teacher feel that she is responsible for "covering" the entire list. The deficiencies of the pupils themselves and the opportunities and demands of curriculum and subject matter will suggest when and how much practice should be given.

While each component skill may be useful by itself in certain reading activities, the main purpose in giving training in the specific items is to bring about more alert reading and generally better comprehension. Pupils are to practice noting details or selecting a topic sentence partly because these abilities in themselves are useful in certain study activities, but chiefly because of the way in which they improve general reading ability. The suggestions and exercises for improving comprehension are arranged according to this plan:

The efficient reader gets the literal meaning and finds details.

Finds and recalls details directly stated
Gets sensory impressions
Follows directions

The efficient reader selects the main idea and gets the general significance.

The efficient reader sees relationships and makes inferences.

Uses verbal cues to establish relationships
Identifies antecedents
Predicts the outcome
Sees details indirectly stated
Follows a sequence of events
Sees the author's organization and recognizes the relationship of subordinate ideas to the main idea
Sees cause-and-effect relationships, draws a conclusion, makes judgments, etc.

The efficient reader reacts to what he has read.

Thinks critically
Appreciates

3. Appraising Performance Through Standardized and Informal Tests

It is important to know the pupil's strengths and weaknesses in comprehension

In formulating a plan of instruction, the teacher will want to find out the pupil's specific needs. One way he can do this is by studying performance on standardized tests of reading. (See Appendix A, Section I, 4, Bulletins 2, 3, 4.) The achievement score (usually in the form of a grade score) gives only the pupil's general level of comprehension. The actual test papers give further information. It is useful to go over the papers of poor readers question by question to see what kind of errors they are making. An analysis of wrong answers reveals in which area weaknesses lie. In the case of certain skills a large number of children may need training; in others, perhaps only a few may need help. It is usually found that pupils do far better in literal interpretation like finding details than in other categories. There is a tendency in many classrooms to ask questions of a factual nature to the virtual exclusion of those involving reasoning, where the function of details is to support inferences and conclusions.

The teacher will learn much about the kind of reading his pupils are doing through his own informal tests and observations. Tests can be devised to provide information about a single type of skill or about more than one. They may be similar in form to the exercises given in this chapter or to standardized tests, and they should not be rigidly timed. Suggestions for planning informal tests of comprehension are given in Educational Research Bulletin No. 10—*The Informal Appraisal of Reading Abilities,* p. 19.

4. The Place of the Skills Approach in Improving Comprehension

The skills approach should form only a part of the total reading program

The teaching of specific comprehension skills is not to be regarded as the whole or even the major portion of a program for reading improvement. Perhaps the main goal in teaching reading is to lead children to an enduring pleasure in reading. Since true recreational reading involves a strong desire to find out what the page says, it is a valuable means for improvement.

Another important means to improvement is the related-activity approach. In that approach, the child's use of reading is related to his activities, as in reading done before excursions, or for units of work, or about hobbies, or sports. That avenue used alone has limitations in the case of seriously retarded readers who need more than incidental practice for mastery of specific reading techniques. It should, however, form part of a remedial reading program whenever possible. If remedial reading is given by a special reading teacher, close cooperation with class teachers is necessary, so that activities can be related.

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[2] Shank, Spencer. *Student Responses in the Measurement of Reading Comprehension.* Cincinnati, Ohio: C. A. Gregory, 1929, p. 53.

The pages following present suggestions for practice in comprehension skills. Most of the skills listed in the outline on page 91 can be developed to a certain extent at any reading level, but both the materials used and the complexity of the questions asked should be adapted to the pupil's ability. This is very important in teaching retarded readers. Starting at the point where the child is, or even below, will yield satisfying dividends in the pupil's achievement and in a more favorable attitude to reading.

Overteaching a skill is to be avoided. A child who can do exercises in finding details so easily that he hardly has to think, should not continue with that kind of practice merely to finish a particular set of exercises. Workbook or other practice material which is used as "busywork" becomes meaningless and monotonous and the slow reader is quick to become bored and to work mechanically.

Each sample exercise in the section following was devised for practice in some specific skill. Practice, however, should not be limited to improvement in a single skill. Frequent opportunity should be given pupils to maintain the skills learned previously by answering a variety of questions on what they read.

In no case should the exercises be regarded as a substitute for teaching. They are presented here both to clarify the type of skill they exemplify and to serve as guides for teachers who want to write original materials. Exercises should not be assigned for independent practice *until after teaching has taken place.*

Many of the exercises suggested in these pages can be used with material taken from books actually in use in the reading room. Well-written readers are often a trustworthy and convenient source of adaptable selections. Care should be used to choose paragraphs or stories that are especially suited to the specific skill that is to be practiced.

5. Suggestions for Developing Comprehension Skills

The efficient reader gets the literal meaning and finds details

In the earliest stages of reading, much of the development of literal comprehension is carried on in conjunction with word recognition and vocabulary study. Therefore, many of the exercises in the two preceding chapters are useful for developing ability to read phrases and sentences.

A good deal of reading calls for attention to specific statements. A child making a model plane, for instance, must observe and follow directions precisely as they are given if he is to be successful. This preciseness is especially useful in study reading of a careful and thorough kind.

a) FINDS AND RECALLS DIRECT DETAILS. The pupil who has developed the habit of reading too superficially often has difficulty in noting and remembering details. Ability to observe details in reading is useful in many activities; e.g., in ordering sports equipment from a catalogue or understanding a newspaper account of a fire.

Pupils who are deficient in getting literal meaning may for a time need practice in finding details directly stated rather than those that are to be inferred. If the comprehension level is very low, the questions will have to be worded like the answer that appears in the passage read as in Question A below. Later the wording of the question may be varied as in Question B.

Example:

The wood of the balsa tree is the lightest wood we have. It comes from Ecuador. It is so light that it is used in life preservers. Balsa wood is also strong. We use it in airplanes.

A. What is the lightest wood we have?
B. Which wood is the lightest there is?

The ability to find directly stated facts and details is basic to higher skills of an inferential type like making judgments. Some pupils seem to guess wildly when they need to reason from what they read. These children benefit from first finding the specific phrases or sentences that bear on the inferences that are to be made. Questions may take these forms:

Find the words that tell that ____________________
What sentence shows that ____________________
Read the sentence that proves that ____________________
Underline the words that mean ____________________

Questions in practice exercises may ask for such details as *who, what, where, when, how big, what color,* and so on. Short-answer exercises are especially useful in this type of practice: completion, multiple choice, matching, true-false. In order to discourage guessing in answering questions, pupils may be asked to defend their choice. On page 93 the exercise in noting details shows how the form of questions can be varied.

b) GETS SENSORY IMPRESSIONS. The poor reader is often helped by being encouraged to form mental pictures of what he reads. He may be asked to tell what he sees or to draw a picture for a passage de-

Play in Central Park

Why not spend the day at Central Park in Manhattan? You can reach it by any of the subways that go to that borough. (If you live in Staten Island, you will have to take the ferry first.) Get off at any station from 59th Street to 110th Street, depending on which spot you plan to visit.

There are many kinds of sports going on in Central Park. You may roller skate, bicycle, play tennis or baseball. When the ponds freeze over in winter you can ice skate too. The Wollman Memorial Skating Rink near 63rd Street is an artificial ice rink that has skating from November to March. If you like rowing, you can hire a boat. There will usually be a sailor or two rowing on the lake, too.

You can visit the Zoo and watch the seals and bears outdoors or make funny faces at the monkeys indoors. You can eat at a good cafeteria near the Zoo. There are beautiful walks and gardens in the park also.

For more information on Central Park, telephone Manhattan Recreation, REgent 4-1000.

1. You will have to take the ferry if you live in
   (a) Manhattan (b) Staten Island (c) Central Park
2. Where is the Wollman Memorial Skating Rink?
3. What animals can you see at the Zoo?
4. Can you bicycle in Central Park? ________ (Answer yes or no.)
5. You can ice skate from November to ________________.
6. What telephone number will you call when you want more information?
7. List all the sports mentioned in Paragraph 2.

scribing a vivid scene, as of a "white-sailed boat rocking on a sunny sea beneath blue skies." For this purpose the teacher may select suitable passages containing colorful details.

The same technique may also be applied to realization of details appealing to other senses—sound, smell, taste, and touch. Pupils may select telling words and phrases such as *crackling* fire, *blaring* trumpet, *sour as a lemon, soft as a baby's skin, thundering* waves, *smell of roast beef cooking in the oven.* Such practice is effective in vocabulary development also. The ability to synthesize significant details into a mental picture is a useful skill in many areas and can be developed by teachers of various subjects. In literature classes, the visualization of descriptive passages as of a violent storm, a busy street, or a junk shop enhances understanding and appreciation of verse or prose. In arithmetic, the visualization of problems, as in calculating areas or distances, aids in understanding a problem.

c) Follows directions. Poor readers often respond inadequately to written directions. Many teachers recognize this deficiency and frequently give written directions since following written instructions is an important use of reading.

Fundamental practice in this comprehension skill can take place in a variety of situations. Written directions can be given for independent study and practice, class procedures, constructing simple objects in crafts or art classes, using or storing materials, following recipes, and doing simple science experiments. With retarded readers, it is advisable to have a group discussion after the first silent reading of more complicated directions, such as, what to do in an emergency or how to reach a place to which the class is taking a trip.

The technique of reading and following directions should be explained and demonstrated to pupils. Reading should be precise and thorough. In the case of simple step-by-step directions, it is enough to read them quickly to get the idea of what is required and then read and follow out each step. In this type of directions the main skill required is "noting details."

Even the most retarded reader can learn to follow written directions. Material should be geared to his general reading ability and may be as simple as:

> Put the pencil on the table.
> Write your name on the blackboard.

Sometimes following directions involves not only noting details, but also visualization of what is to be done and an understanding of the sequence of steps.

Though practice in following directions is most effective in real situations, it can also be given with prepared exercises. These may involve such content as rules for tricks and games, procedures for constructing model airplanes and boats, rules of etiquette, routes to places and the like. Evidence of understanding can be shown in the carrying out of instructions or answering of questions on the content.

How to Make a Potato Stamp

Cut off about a third of a potato. Draw a simple design on the flat side of the larger piece. The first letter of your name, a star, a heart, or a tree would be easy to start with. Cut along the design with a knife. Then cut away the part of the potato outside the picture you drew. The design should stand about a quarter of an inch above the rest of the potato.

You can use the potato stamp on paper or cloth. Brush some paint on the design and press the stamp down firmly. Practice doing this until the picture is clear and neat.

Your stamp will be useful in many ways. Two good ways are printing gift wrapping paper and decorating paper napkins for parties.

1. Write a list of all the things you need for making and using the stamp.
2. Where should you draw the design?
3. Two good designs to start with are ________________ and ________________.
4. How far should the design stand out on the potato?
5. Here is a list of some things you have to do to make a stamp. Put them in the right order. Write the number in the space before each sentence.

________ Draw a picture.

________ Put some paint on the design.

________ Get a potato.

________ Cut away the potato outside the design.

________ Use the stamp on cloth or paper.

The efficient reader selects the main idea and gets the general significance

Much of the time, we read to get the general meaning of a paragraph or selection. When we read a newspaper, a novel, or a magazine article, we usually find that all we want is the author's main ideas. This kind of reading should be more rapid than that needed for noting details.

Many retarded readers lack skill in reading for a general impression. Some of them tend to read all material too deliberately, and miss the main point because they get lost in detail. Others read sentences as separate units of thought. These pupils need specific training in reading for total meanings. In training pupils to read for general ideas, either narrative or informational material may be used. For retarded readers, particularly, it should be carefully selected with certain qualities in mind:

The main idea should be clearly apparent, even obvious, especially when this skill is in its early stages.

The passages should not contain an undue amount of obscuring detail.

The material should be suitable for quick reading and present no problems of new vocabulary or unusual sentence structure.

At first only brief paragraphs should be used. Longer paragraphs or a selection of several paragraphs can be used as skill is developed.

Pupil response can be oral or written—by underlining, matching, or writing a sentence. Practice should take a variety of forms as in the suggestions below:

a) FINDING THE TOPIC SENTENCE when it is clearly stated. The topic sentence is usually the first sentence of a paragraph. (The sample paragraph under Item b below would be suitable.) It is important that pupils know that a good paragraph is a group of sentences that tell about one thing.

b) READING A PARAGRAPH AND SELECTING THE CENTRAL THOUGHT from a list of sentences or phrases:

A good hiker knows how to take care of himself. He does not drink water from a spring or brook unless it is marked safe. He watches out for harmful plants like poison ivy and poison oak. When he goes on a long hike, he takes along a warm sweater and wears shoes that are strong and comfortable.

What is this paragraph about?

(1) What to wear on a hike.
(2) What a Boy Scout must do on a hike.
(3) How to keep safe on a hike.

c) GIVING THE CENTRAL THOUGHT OR SUMMARIZING THE GIST of a paragraph in an original sentence:

What does this paragraph tell about?
What is the main idea of this paragraph?
This paragraph is mainly about ________________.

d) SELECTING THE CENTRAL THOUGHTS from several paragraphs of a story:

Read these paragraphs about training pigeons. Then number the titles at the bottom of the page to match the paragraphs.

1. Training pigeons is an interesting hobby that many boys enjoy. It is not an easy hobby. To do a good job you must be gentle and willing to work hard. You can teach these birds to race and carry messages. You must also feed them, exercise them, and take care of them when they are sick.

2. The birds used for training are called homing pigeons because they can find their way home from far away. They are not the kind you see in the park. Homing pigeons are very strong and are able to fly great distances. Champions can fly over a thousand miles. They also fly very fast. Birds that are well-trained can fly a hundred miles in less than three hours.

3. The pigeons should be fed twice a day. They like corn, peas, and wheat. They have no teeth so they need to eat grit—bits of rock or shell—to help grind their food. Feed stores sell specially mixed pigeon foods.

4. Homing pigeons are kept in pigeon houses called lofts. The size of the loft depends on the number of birds. It can be made of old boxes and wire screening, but must have a good roof and a floor. It should be set in the open so that birds can find their way back.

________ How to Feed Pigeons

________ Why Pigeons Are Strong

________ Pigeon Houses

________ What Homing Pigeons Can Do

________ How to Buy Pigeons

________ A Hobby That Is Interesting but Not Easy

e) Writing titles for a paragraph or for a longer selection; choosing the most appropriate title from a group of titles; matching each title in a list of titles to its corresponding paragraph in a story or an article:

It was a wonderful pie! It made the whole kitchen smell good. The crust was crisp and melted in the mouth. The cherries were sweet and the dark red juice oozed out over the plate.

Make up a title for the paragraph you have just read.

or

Choose the best title:

(1) A Pretty Pie

(2) Pie for Lunch

(3) A Delicious Pie

f) Composing headlines for story paragraphs. The characteristics and functions of newspaper headlines should be discussed in preparation for this activity. Pupils can also be asked to select the best headline from several given to them. Short, simple human interest stories make good practice material:

Writing a Headline

The other day, some men working in Yankee Stadium got a big surprise. A fox dashed out on the baseball diamond. The workmen chased it from first base to home plate but it got away. Finally it ran under the bleachers and disappeared. People are wondering how a fox got into Yankee Stadium.

Write a headline for the story you have just read.

or

Choose the best headline:
(1) The Fox
(2) A Big Surprise
(3) Fox Hunt at Yankee Stadium

g) Getting the general significance of a passage concerning the feelings and emotions of a character:

Robert sprang to his feet when he heard the news. He threw his cap up in the air. A grin spread over his face and he yelled, "Yippee!"

1. What was the news he heard?
    (1) His brother was ill.
    (2) His team had won the football game.
    (3) His class was going to have a test in arithmetic.

or

2. How did Robert feel?
    (1) frightened
    (2) happy
    (3) sad

h) USING SPECIAL CUES TO THE MAIN IDEA supplied by the author; e.g., titles, subtitles, sideheads.

The efficient reader sees relationships and makes inferences

The ability to see relationships is essential to comprehension. Even in material of the simplest type, the relationship of idea to idea must be carefully observed if understanding is to take place. The retarded reader often shows marked deficiency in this area. He does poorly in answering questions that require him to "tell why," to draw conclusions, to "read between the lines"; he has difficulty in making an outline or recognizing which portions of material are pertinent to his purpose. He needs practice of various types, some of which are suggested below.

a) USES VERBAL CUES AND SIGNALS TO ESTABLISH RELATIONSHIPS. Pupils often miss relationships between ideas because they do not utilize important word signals that help in getting an author's meaning. For example:

> To show sequence of ideas or paragraphs—*first, second, in the first place*
>
> To indicate opposing or contrasting ideas—*however, but, still, yet, although*
>
> To herald additional or reinforcing information—*besides, also, furthermore*

Observance of word signals often helps in an understanding of the organization of a selection as when paragraphs are introduced by *first, second, third.* Even more important, such signals help retarded readers who usually have trouble with complex sentences. Harris suggests that the poor reader's difficulty in reading complex sentences often results from unfamiliarity with the meanings of words that introduce subordinate clauses. (See Appendix A, Section I, 16, pp. 378-79.) He points out that many pupils are not accustomed to speech and conversation which employ these connectives. He recommends oral practice in constructing sentences, and in paraphrasing or rephrasing ideas with connectives like:

> who, which, what, that, from whom, to which, how, like, so as, in order to, because, since, until, as soon as, before, while, as, after, following, if, unless, provided that, whether, should, as well as, all but, hardly, except, without, although, however, moreover, therefore, nevertheless.

An exercise like this may be used:

> Easy: I am hungry (and, but) I shall wait till lunch time to eat.
>
> Harder: It is raining. (Therefore, However) I shall take an umbrella.

b) IDENTIFIES ANTECEDENTS. The retarded reader sometimes fails to understand a passage clearly because of confusion regarding the correct antecedent of a relative pronoun or other reference word. The confusion is especially likely to arise when the antecedent is in one sentence and the word that refers to it in another. A partial list of reference words is:

> he, it, its, his, him, who, which, they, their, them, this, that, there, each, one, none, many, such, first, last, former, latter.

Pupils can be asked to find the antecedents of reference words as they occur in directed reading activities, or an exercise of this sort may be devised:

> Some birds fly south in winter and north in summer. However, many stay in the same place all year.
>
> Many means ______________________.
>
> Yesterday we built our clubhouse. We started at seven in the morning. We made it of old boxes and tin sheets.
>
> It refers to ______________________.

c) PREDICTS THE OUTCOME. The competent reader develops the habit of anticipating content. He is often fully conscious of this process only when he reads stories of high suspense like adventure or detective fiction, but the habit persists with other materials too. The effect of thinking ahead is to intensify a critical and interpretational approach to the printed page, a continuous process of inferring and judging. Success in anticipating or predicting events or outcomes of what is read is dependent on other skills like noting important details, following a sequence of events, and understanding cause and effect relationships. Practice may be given in various ways:

> Pupils read to a designated point in a story and several of them tell how they think the story goes on. The class then evaluates the suggested endings, backing up their approval or disapproval by references to what they have already read.
>
> Before reading takes place, pupils are asked to guess from the title and illustrations or from the first paragraph what the story will be about.
>
> Exercises can be prepared in which short unfinished narratives are used.
>
> Pupils are asked to choose what happened next from a group of several suggestions. (See Appendix B, Section I, Gates-Peardon *Practice Exercises in Reading, Type B.*) The choices given should be those which will lead to a conclusion based on clues given in the story.

d) SEES DETAILS INDIRECTLY STATED. In the Bureau project, it was found that poor readers often failed to gain insight into what they read because they grasped only those details that were explicitly stated. Sometimes these pupils were unaware that any but literal meanings were available in the reading process; thus they failed to look for the implications that would lead them to more than a superficial understanding of what they read. Furthermore, they tended to read each sentence as a separate unit; they failed to establish relationships between ideas in different sentences.

Authors count on having these relationships established by the reader. Except in the easiest materials, they write in the expectation that the reader will infer certain additional information from what is on the printed page. A story or article in which every detail was explicitly stated would be a dull affair. Even a simple passage like the following shows how the author depends on the reader to fill in gaps:

> Tom walked around town looking for Skipper. He asked people if they had seen a big white dog with black spots. He looked in the park and down by the river. Over and over he whistled and called, "Here, Skipper!" But no Skipper came. Skipper had disappeared.

In the above paragraph, implied ideas rather than direct statements answer such questions as:

> Who was Skipper?
> How did Skipper look?
> Was Skipper in the park?

e) FOLLOWS A SEQUENCE OF EVENTS. Retarded readers rarely have trouble in following a sequence of events in very simple, short narratives. They can usually "tell the story" orally without too much trouble. But they fail to keep in mind a clear story line when presented with a more complex narrative. Inability to follow a sequence of events or ideas affects reading of nonfiction as well. Simple story material can be used at first and more complicated kinds later:

Have pupils retell stories and anecdotes orally to encourage them to note the order and relative importance of events. Other pupils listen critically for incidents omitted or out of place.

Help pupils use word cues to establish a time sequence where indicated by time-words (like *one o'clock, Monday, July*) or by such words as *first, next, then, later, finally*. Also, questions like these may be used:

> What did the boys do first when they got to the clubhouse?
> What did the soldier do after the war was over?
> Where did the traveller go then?
> How did she feel the next day?

Ask pupils to list events in chronological order or ideas in logical order following a reading of a selection. This kind of practice is more difficult than those above. An example of this type of exercise is given in Question 5 of the exercise on page 94.

f) SEES ORGANIZATION AND RELATIONSHIP OF SUBORDINATE IDEAS TO THE MAIN IDEA. Poor readers rarely bother to notice an author's plan of organization. As has been noted above, they tend to read one sentence after the other without the habitual analysis and appraisal that a good reader employs.

It is always useful to observe the pattern of a piece of reading material. The reader is thereby able to follow a line of reasoning and understand conclusions reached by the author; he can select important ideas and pass over unimportant details; he recalls and retains the material better; he finds it easier to take useful notes and summarize.

Retarded readers are likely to be unaware that well-written material is constructed according to a pattern. While the form of simple selections can be discussed with pupils, the teacher will find it desirable to delay formal outlining of selections until certain skills have been thoroughly acquired. Perhaps the best starting point is to give practice in finding the main ideas, first of one paragraph and later of a longer selection.

The pupil also needs practice in finding the connection between a main idea and ideas subordinate to it. For this, it is important that he should know that a well-written paragraph is the development of a single main idea. All the other ideas explain the main idea. Paragraphs used in this kind of practice should be carefully selected for their clear development. Well-written textbooks often contain adaptable material.

Following are suggestions for planning lessons and exercises:

(1) A topic sentence followed by a list of related and unrelated ideas is presented. Pupils are asked to select the related ideas.

> Study the Topic Sentence. Then read the sentences below it. Put a check next to the sentences that tell something about the topic sentence.
>
> Topic sentence: Swimming is not hard if you learn to do certain things.
>
> Keep your legs nearly straight while you kick.
> Take a breath each time you turn your face out of the water.
> Wear your best bathing suit.
> Keep your fingers together when you practice the arm stroke.
> Pack your lunch in a brown paper bag.
> Kick your feet three times to each arm stroke.
> Keep practicing the arm and leg stroke.
> Keep your eye on the ball as you swing the bat.

(2) Same as (1). The pupils are asked to select unrelated ideas.

(3) A paragraph is presented. The main topic is selected in a discussion or indicated by the

teacher. Pupils are told how many supporting ideas to find.

(4) Same as (3). The number of subordinate ideas is not indicated.

(5) Pupils are given a paragraph in which one or more unrelated ideas are included. Pupils are asked to find these.

(6) Pupils who read well enough can be given practice in outlining selections using formal outline forms. Though formal outlining is sometimes useful, it is not necessary to the understanding of simply constructed material. Outlining is discussed on page 105.

g) Sees cause-and-effect relationships, draws a conclusion, makes judgments. Since children do not tend to read more thoughtfully just because somebody thunders "Think!" it is valuable to provide them with guidance and specific opportunities for inferential reading. Some of these opportunities have already been described under the headings "Predicts the outcome" and "Sees details indirectly stated."

Teachers find that well-chosen thought questions lead to more reflective reading than those which simply call for factual details. Compare, for instance, "What did Mary decide to do?" with "Was Mary's decision a wise one? Why?" The second question necessitates finding the answer to the first and then viewing it in relation to other ideas in the selection. Pupils can demonstrate in discussion how they arrive at their answers, citing statements in the text.

If pupils have difficulty in drawing conclusions and making judgments, they may first need practice in answering cause-and-effect questions to which the answer is directly stated in the text. However, as soon as possible they should be asked to make inferences from the information given there.

Who Said It?

Here are some things people say. At the bottom of the page is a list of people. Match what is said with the person who says it.

1. May I have the next dance?
2. Kill the umpire!
3. Calling all cars! Calling all cars!
4. Please don't pinch the vegetables.
5. Please step to the rear.

________ policeman
________ fireman
________ boy
________ bus driver
________ baseball fans
________ grocer

Questions like the following stimulate pupils to reason:

If Bob had not seen the car speeding down the road he would not have ________________.

What reason did the old man have for not speaking to his neighbors?

Ellen was unhappy because ________________.

This story proves that:

1. It is better to give than to receive.
2. It is pleasant to get gifts.
3. Rich people should give big presents.

Why do we wear light colored clothes in summer?

The efficient reader reacts to what he has read

The comprehension skills described so far have dealt with ability to get an author's meaning, either directly expressed or implied. The reader does not, and should not, stop there. He reacts to and appraises the author's ideas. His evaluation may be purely objective or may have subjective elements as well.

a) Thinks critically. Objective evaluation, often called *critical reading,* is sometimes reserved for superior readers by teachers and authorities on reading. Critical reading, however, depends basically on critical thinking which involves both skills and attitudes that should be developed from the very beginning. Pupils who do not read well enough to practice evaluation techniques independently may take part in oral discussions of material even if it has to be read to them. Such discussion is particularly valuable in the social studies, though it should not be limited to that area.

Opportunities for learning often arise naturally, as when pupils ask why two newspaper stories disagree. The level of the problems selected for discussion should not be too difficult, but it should also be taken into account that junior high school pupils who read on a fourth year level are interested in more mature issues than eight-year-olds who read just as well. Some types of critical evaluation are:

(1) Discriminating between fact and fiction

Is this a true story? Pick out the sentences (or ideas, or facts) that tell you.

(2) Recognizing "slanting" of information

Is the author trying to convince us of his point of view by appealing to our emotions or by giving us facts?

Tell which of these ads is really factual:

Eat our purer, better-tasting ice cream.
Our ice cream contains 12% butterfat.

(3) Examining the truthfulness and validity of the author's statements

> Who is the writer? Is he an authority on this particular question? Are his facts up to date?

(4) Recognizing and selecting ideas relevant to the pupil's purpose

> Here is a list of sentences about New York City. Check every sentence that would help you find out how New York City takes care of the health of its people.

b) APPRECIATES. Subjective elements are prominent when our thinking about what we read is colored by our emotions and feelings. Opportunities for developing appreciation occur in:

Getting the general tone of what is read and sensing the purpose of the author—humorous, sarcastic, serious

Considering the author's language—color words, rhythm, style

Relating what is read to personal experience

Giving reasons for liking or disliking material

Reacting to humor—cartoons, jokes, stories, films

6. Reading Purpose

The reading purpose determines the approach

In general, we read for either of two broad purposes: recreational and informational. Many times our goal is both, as in the case of the sports enthusiast who reads about baseball or hockey.

In addition to the general purpose of getting recreation or information, we usually read with some specific purpose in mind—to solve a problem, to reproduce the material later, to follow a story, to find out how to play a game or construct an object. The specific purpose not only affects the choice of reading matter but how it is read. For instance, the pupil whose hobby is stamp collecting may read a book about philately with as much enjoyment as he reads an exciting story of adventure, but his approach will be different in the two cases. For one thing, he will probably read the story faster. For another, he may use different comprehension skills. In reading the book on stamps, he may need such skills as noting details, following directions, determining the relevance of content, selecting main ideas, and drawing conclusions. The exciting story may require these too, but will probably chiefly call for following a sequence of events, anticipating action, making inferences, and getting the emotional tone.

Retarded readers need help in varying their approach to reading materials. Since they tend to read everything in the same way, they need to be taught that their approach to reading matter should be influenced by what they want to get out of it. They should learn that thinking about the purpose of their reading and looking over the material before they read will help them to save time and do a better job. The teacher should demonstrate this frequently in advance of silent reading. Some considerations are:

The suitability of certain reading speeds for specific jobs:

> *Skimming* to locate specific details or relevant passages, to choose books, etc.
>
> *Rapid reading* to get main ideas or the gist of a story
>
> *Slow careful reading* for following directions, for memorizing facts, for understanding explanations

The usefulness of using first one speed and then another. For example, if the task to be done involves finding information on the Statue of Liberty for a unit on New York City, the pupil may need to skim a page or two to locate pertinent material and then read the part carefully.

On what occasions to reread and how much of a selection to reread. Some reasons for rereading are:

- to understand difficult ideas
- to find answers to questions
- to understand difficult sentence structure, figures of speech
- to memorize significant ideas or details
- to enjoy a well-liked selection again
- to react critically to material read

Rereading should always be purposeful. It is of little benefit when it is done in response to suggestions like, "When you finish the story, read it over again."

Application of appropriate comprehension skills. It is especially important to show pupils that the approach to story materials is usually different from the approach to study reading.

XII. Special Study Skills

The interests and needs of the junior high school pupil require that he be able to look up and find information from reference materials in both his personal and school life. Whether his purpose be to look up a telephone number or the date of a battle, he must learn how to find sources of information and how to use them correctly.

1. Abilities Basic to the Development of the Study Skills

In planning for teaching the use of reference sources, it is necessary to bear in mind the pupil's general ability to read. This involves not only the level of difficulty of the material he is able to read, but also such specific comprehension skills as those discussed in Chapter XI. For instance, before the child can learn to make an outline of a selection, he needs practice in such items as finding the central thought, following the sequence of ideas, and seeing the relationship of the subsidiary ideas to the main thought and to each other. He needs similar comprehension skills in order to summarize anything but very easy material.

Another ability that affects proficiency in study skills is the power to vary the speed of reading according to the purpose for which it is done. A pupil who wants to report on what the Pilgrims ate during their first winter in Massachusetts may skim a table of contents to find a chapter on life in Colonial days. He skims the chapter to find the section telling how the Pilgrims supported themselves, reads that section quickly, and then goes over some of it slowly in order to remember the specific details he needs.

2. When to Teach the Study Skills

It is impossible to specify exactly in what order or at what time the various study skills should be taught to the retarded reader in the junior high school. This order will be affected not only by the pupil's level of comprehension but by the desirability of making practice in study skills as functional as possible. Many of these skills, such as interpreting maps, graphs, and tables, find more direct motivation and use in the content fields like social studies or mathematics. The special reading teacher would be wise to seek opportunities to teach such items as using an index in connection with the work the pupils are actually doing in the science class or ordering from a menu in connection with the instruction going on in the home economics room.

3. Objectives for Teaching the Study Skills

Definite objectives are needed in teaching the study skills. The following objectives might be set:

A knowledge of the kinds of reference sources available and ability to determine which type would be useful in providing information on a given topic

Ability to locate material in a reference source

Ability to use the material found in the way it will be needed

Objective 1

Knowledge of the Kinds of Reference Sources Available and Ability to Choose the Right Source

In certain content areas, such as social studies, the emphasis has shifted from fact memorizing to broad understandings. Instead of being limited to a single textbook, the pupil now needs to know about sources or guides to sources like these:

maps, globes
encyclopedias
atlases
The World Almanac and Information Please Almanac
magazines, textbooks, newspapers, pamphlets
dictionaries, glossaries
card catalogues in school and class libraries
biographical dictionaries

Some other references that the pupil might use for finding information, particularly in his personal life, are:

telephone books
automobile and subway maps
menus

department store directories
catalogues of sports or hobby equipment
timetables of railroad and bus lines
radio and television programs
newspaper indexes

In order to give practice in deciding on suitable sources, a list such as the telephone book, atlas, dictionary, encyclopedia, almanac, biographical dictionary and the like may be written on the blackboard. The children are then asked to suggest in which sources they would find information pertinent to such questions as:

"When was George Washington born?"
"What is the address of the Department of Parks?"
"Who was Sitting Bull?"
"How should a burn be treated?"

Objective 2

Ability to Locate Material in a Reference Source

Once the pupil has found a book that might be expected to contain materials pertinent to the question he has in mind, he is faced with the problem of locating in the book the exact parts which might help him. Many books can be used efficiently with a knowledge of the helpful parts, such as the table of contents and the index. However, the location of desired information in such sources as the dictionary or encyclopedia requires special understanding of the nature of the particular source. Therefore, specific training should be given in their use.

a) LEARNING TO USE THE ALPHABET. An alphabetical arrangement is used in many reference materials such as the dictionary, telephone books, and the encyclopedia. The retarded reader's ability to use the alphabet quickly should not be taken for granted just because he can recite it. Even adults often recite through to a letter just to find the one before or after it.

As much as possible, practice should be given functionally by putting pupils in charge of such jobs as arranging the class library alphabetically or keeping an alphabetical list of new vocabulary, or making a class name-and-address book.

Practice in certain aspects can be given with simple exercises. These can be put on the blackboard or mimeographed. Speed is essential.

(1) These exercises will help you know letter places. Do them as fast as you can:

What letter comes

before b? ______ before q? ______ before r? ______
after e? ______ after f? ______ after m? ______

Fill in the missing letter:

c______e r______t q______s

Arrange the letters in each group according to their places in the alphabet:

d c a b e t p q s r l n m p o

Cross out the word not in alphabetical order in each list:

lake
leaf
lump
list
lot

pat
pen
plate
pull
pocket

safe
stock
scout
show
straight

Arrange these letters alphabetically:

a q e t b l a f u c g y d n o

Arrange these words in alphabetical order:

able, spell, count, prove, little, hunger, father, thanks, inside.

(2) When the initial letters are the same, words are arranged according to the second letter.

Number the words in each group to make the alphabetical order correct:

through
together
try

say
silver
soldier

trick
tonight
tailor

border
bright
before

(3) When two or more initial letters are the same, words are arranged according to the other letters, successively.

Number the words in each group to make the alphabetical order correct:

drink
dream
driver

maple
manage
matter

grape
gravy
grass

thirsty
thirst
third

Here are some words that have been left out of the alphabetical list below:

frosting, catcher, platform, date, plain, any

Write each one in its correct place in this list:

answer
______
banish
banker
bravery

______
coffee
darkness
______
enter

from
______
frosty
full
future

place
______
plan
plaster
______

b) LEARNING TO USE THE PARTS OF BOOKS. It is important that pupils know the parts of a book that can be helpful and how to utilize them as guides and timesavers. Practice should be given in utilizing such aids as:

the table of contents
the index
the glossary
the list of maps, illustrations, and tables
chapter headings or sideheadings
footnotes
the appendix

The table of contents and the glossary are found in books on relatively low levels of reading. Glossaries contain only the most difficult words in a book with their pronunciation and meaning. Training in using the glossary may be given by procedures similar to those for dictionary skills.

Although the index is an important timesaver in seeking information, it should not be introduced to pupils whose reading level is too low. McKee suggests its introduction on the third or fourth year reading levels and Harris on the sixth year level. (See Appendix A, Section I, 22, 16.) In general, the reading level should be high enough for using books, such as textbooks and junior encyclopedias, that contain indexes.

The best time to teach the use of an index is in connection with the actual search for information on some topic connected with an activity or some special unit. In schools where the core curriculum unifies English and other subjects, opportunities for teaching study skills will arise naturally. Practice in using the index of a book involves the teaching of a series of graded skills and understandings as in the following:

Understanding the purpose of the index and the way in which it is arranged

Finding a topic in an alphabetical list

Thinking of relevant key words for a topic which might lead to the discovery of information on it

Understanding the meaning of various indications used in indexes such as commas and dashes between page numbers, boldface type, numbers in parentheses

Locating the indicated page and efficiently skimming to find the information on that page

The development of alphabet skills is discussed on page 101. Specific practice is necessary in some items listed above, particularly that of choosing key words for a topic. An examination of the topics listed in the index of a textbook the pupils have been using will help them to an understanding of the kinds of items listed. Practice may be in the form of oral discussions or written exercises. At first, the questions given should contain an obvious key word as in the exercise suggested below. After the key words are chosen, they should be verified by actual use in answering the questions.

Choosing Key Words

Below are some questions. In each question, underline the word you would look up in the index if you wanted to find the answer quickly.

1. What keeps a dirigible up in the air?
2. What do we mean by "commercial flying?"
3. Where did the Wright Brothers demonstrate their first successful flight?

The determination of key words becomes more complex when more than one is present in a question like "What agricultural products does Denmark export?" The keys here are agriculture, Denmark, and export. Inspection of a good index will lead to the discovery that subtopics are given after a main topic in order to save the reader from turning to all the pages where the main topic is to be found. Part of an index written on the blackboard can serve as the basis for practice or an exercise can be mimeographed. Later, indexes in pupils' books, in encyclopedias, and in almanacs can be used.

Using Subtopics

Here is part of an index showing a topic with its subtopics. Write the pages of the best subtopic next to the questions below.

England: commerce of, 80; farming in, 79; forests of, 88; history of, 63-65; government of, 71-72; mineral resources of, 85-87; transportation in, 91; large cities, 93-95.

1. What products does England buy from the United States? ____________
2. In what part of England is coal mined? ____________
3. When are elections held? ____________
4. Why doesn't England raise enough food for her population? ____________
5. The name of the capital is ____________

c) LEARNING TO USE THE DICTIONARY. Many children and adults are not aware of the various services given by the dictionary. They tend to look on it as being chiefly a guide to word meaning and pronunciation, with possible additional details about foreign expressions and biographical or locational detail. Here is a partial list of the kinds of information that standard dictionaries give about words. Some of these are not found in the dictionaries on the most elementary levels:

pronunciation—including preferred pronunciations
syllabication
spelling—including the preferred spelling
meaning—including information as to common meanings and usage
synonyms and antonyms
sentences illustrating meaning
illustrations—pictures and diagrams
cross references to other words similar in meaning

derivations of words
prefixes and suffixes
parts of speech
idioms like *by the way*

Acquiring skill in using the dictionary for these purposes cannot be left to chance. The suggestions given below for finding the meaning and pronunciation of words will suggest techniques for the other items.

Standard dictionaries are so arranged that they can be used with speed and accuracy. But if the aids are not understood, looking up words becomes a laborious process. It is, therefore, not enough to have dictionaries present in the classroom and insist that pupils look up words they do not know. To use the dictionary efficiently requires training and practice. The pupil should learn—

to locate a word speedily

to pronounce it

to choose from several meanings the one most appropriate to its use in the sentence in which it is encountered

To locate a word speedily, the pupil must have good control of the alphabet, know how to use the guide words at the top of the page, and be able to skim a column for the word he wants. The teacher should show the pupils that words are listed alphabetically. If the dictionaries have thumb indexes, their use should be pointed out. If not, practice can be given in deciding in what part of the dictionary a letter is and in turning to that part.

The use of guide words should be explained. It is a common sight to see children (and adults) helplessly search through page after page of entries beginning with "b" in a dictionary for a word beginning with "b." Exercises such as the following will give practice in the use of guide words.

Finding Entry Words Quickly

It is helpful to know in what part of the dictionary a letter probably is so that one can turn to the right place quickly. Try to remember the alphabet in thirds.

First Third:	a–h
Middle Third:	i–q
Last Third:	r–z

In what part of the dictionary would you find these letters?

a, q, s, j, e, u, l, p

In what part of the dictionary would you find these words?

visit, gong, measure, bond, present, lake, flying

Practice opening your book as close to the right place as you can for each of these letters:

r, l, z, b, x, d, m, n

Guide Words

At the top of each page in the dictionary there are two words. These are called guide words. The one at the left tells the first word on the page, and the other tells the last word on the page. Thus you can find words quickly by looking at the guide words before you try to locate the entry word on any page.

Underline the words in the lists below that belong under the guide words given at the top of the lists.

angle any	hot hump	promote proud
angry	hour	plan
apple	how	proof
answer	hunt	protect
anyhow	humble	prove
among	hotel	prominent

Guide Words

Using your dictionary, find the guide words for each of these words. Write the guide words in the space next to the word.

bloom ______________________
drape ______________________
furry ______________________
interest ______________________
mast ______________________
other ______________________
perfect ______________________
river ______________________

The most important service rendered by the dictionary is that of providing meaning. The quality of the meaning derived depends on the user, whether he be adult or child, since the individual's range of experiences and his feeling for language help him discriminate between delicate shades of meaning.

The child needs specific guidance in making use of the meanings given in the dictionary. He should learn to use the pictures, diagrams, and illustrative phrases and sentences as aids to interpretation. He should learn to examine the various meanings given for a single word. The pupil who reads, "He hired a *cob*

Which Meaning?

Several meanings are given for the word hold. The second column has some sentences using the word. Next to each sentence write the number of the right meaning.

hold		
1. grasp and keep	He will hold to his word.	3
2. contain	This box will hold a pound of sugar.	____
3. be faithful	The dog crossed the ocean in the hold.	____
4. part of a ship	Please hold my hat.	____

Finding the Exact Meaning

In each sentence below one word is underlined. Look up each one. Your dictionary gives several meanings for each word. Study the meanings carefully and choose the one that shows how the word is used in the sentence. Copy the right meaning after the sentence.

1. He was cool in the face of danger. ______________________
2. The color in this dress is fast. ______________________
3. Did you have a hand in these plans? ______________________
4. The farmer bought a parcel of land. ______________________
5. The class had a spelling bee. ______________________
6. He wore glasses for reading. ______________________
7. I had a lamb chop for lunch. ______________________
8. She won in the 60-yard dash. ______________________
9. This hat is made of felt. ______________________
10. Fold your paper like this. ______________________

and rode to town" and finds in the dictionary that *cob* is the central part of an ear of corn is more confused than before he looked up the word. For that reason, the pupil must learn to keep in mind the context in which a word was encountered while he matches various meanings to it.

Exercises in selecting meanings can be easily devised with the dictionary in use in the classroom. Pupils should thoroughly understand the technique of choosing the right word before they work independently.

d) Learning to use other sources of information. The skills discussed in this chapter will help also in the development of ability to use reference books like encyclopedias and almanacs. Study of the card catalogue in the school library can be preceded or followed up by a simple classification and catalogue of the classroom library. Pupils should be taught how to go through the process of borrowing a book from a public library. The second list of references on page 100 contains a number of items that may be kept in the classroom and used there. Such reference sources as newspapers and subway maps are especially helpful. Reading can be made to function in the daily life of the class through the liberal use of the materials listed on page 116.

Objective 3

Ability to Use the Material Found in the Way It Will be Needed

Poor readers need to be trained to study independently. When faced with learning from the printed page or preparing a report on what they have read, they have little notion as to how to proceed. They read a selection once and then copy some of it word for word. Often they begin to copy from a selection without stopping to read it first. Even when they have developed ability in useful comprehension skills, they sometimes fail to apply these skills.

Pupils whose reading level is very low need to be guided in each study activity they undertake. They may be asked to give the main ideas, or the gist in a sentence or two, or answer specific questions. Those pupils whose comprehension is higher can profit from learning special techniques which will aid them in organizing and recalling what is read. If they have competence in selecting main ideas and supporting details, they can learn to take useful notes and to summarize. They can also learn to outline clearly organized material of an informational type. Suggestions for developing ability to understand the organization of reading matter have been given on page 97. If formal outlining is to be taught, its nature and advantages should be discussed and some simple outlines developed by teacher and pupils together. A series of graded lessons may involve single paragraphs and then longer selections. At first, the teacher gives the pupils a skeleton outline of the selection to be read. The main ideas are supplied and the number of subtopics to be found by the pupil under each heading is indicated like this:

Conserving Our Forests

I. Enemies of the forests

A. ______________________________
B. ______________________________
C. ______________________________

II. What we can do to save them

A. ______________________________
B. ______________________________
C. ______________________________
D. ______________________________

In subsequent exercises, the number of subtopics may be omitted, and finally, the pupil is taught to find the main topics and their subtopics.

XIII. Rate of Reading

It is obvious that the retarded reader who has so many difficulties in word recognition and comprehension will be deficient in speed also. His reading rate will be low if he hesitates when he encounters unfamiliar words and if he reads by individual words rather than by thought units. In striking contrast to the slow reader is the one who reads with excessive speed regardless of comprehension. The teacher should not be deceived by the glib fluency of such a pupil. He too needs guidance in developing an effective rate of reading and in adjusting his speed to the kind of material he is reading and to his purpose in reading it.

The problem of reading rate is one that must be considered within the framework of the whole reading process. It can be developed under teacher guidance directly and indirectly. Usually when a pupil develops skill in word recognition and vocabulary and has many opportunities for reading extensively, speed takes care of itself. After some fundamental techniques have been acquired, *the simplest and most enjoyable way to increase speed is by reading an abundance of interesting material at a level below one's instructional level.* It is, therefore, important for the pupils to have time assigned for free reading during which they may practice the techniques learned during the more intensive work periods. How to discover pupils who need direction in the area of speed and ways of guiding them will now be considered.

1. Diagnosing Pupil's Needs

Classroom reading material is very valuable for diagnosing difficulties in reading rate

Teachers in the reading project found certain classroom materials quite helpful in discovering whether pupils read too slowly or too quickly or were inflexible in rate of reading. These materials included storybooks and textbooks in the content areas. There are several ways of using these materials as sources of information on reading rate. Unknown to the pupil, the teacher observes him as he reads a story at his reading level. A record is kept of the time he spends in reading one or more pages; later the words on these pages are counted and the reading rate is derived. The same procedure is followed in timing the pupil on study-type material. A comparison of the two records reveals any lack of facility there may be in adapting speed to the kind of material being read. In some cases, it is necessary for a pupil to read orally to the teacher who is trying to find the cause of his difficulty. Occasionally standardized tests were used, such as the Gates Reading Survey, which furnishes norms for rate.

2. Developing Speed

Speed is affected by the purpose for which a selection is read and by the nature of the material

For finding a specific detail, the fastest approach, skimming, is required; for answering a question on general meaning, rapid reading is appropriate; for relating certain stated facts or noting sequence of events, a careful reading at a moderate rate is desirable. A question or direction given just previous to the actual reading will help the pupil set his purpose. The nature of the material also is a determining factor in the area of speed. When a person is reading science or mathematics materials, he will read at a less rapid rate than when he reads light fiction. It is more important for the junior high school pupil to be able to adjust his speed to his purpose in reading and to the various types of material than to achieve a maximum rate.

a) Informal approaches. In addition to free reading, speed was developed by the reading teachers in other informal ways. By means of a question or a brief statement, a pupil was helped to establish a purpose for reading a selection. His desire to find out caused him to move ahead in his reading and reduced the possibility of distraction. Without creating tension, a teacher often guided a pupil in improving his rate by encouraging him to read a little more rapidly, to skim a selection to find a particular idea, to read light material more quickly than the study type where details are important. By means of suggestions like these, pupils were prevented from habituating a uniform speed. It is very important for the teacher to recognize that at the early stages of the retarded reader's growth there need be no further emphasis on speed.

b) Related reading habits. Many retarded readers have certain undesirable reading habits that interfere with speed, such as word-by-word reading, excessive articulation, and pointing. Boys and girls of junior high school age are sufficiently mature to understand simple explanations of the effect of these habits on rate of reading; therefore, they can respond more understandingly than younger pupils to suggestions for improvement. It is desirable for the teacher to take time to talk to a pupil about any immature habit that he may have and to show how it retards speed. Sometimes the only further help needed is an occasional reminder. Additional suggestions for overcoming specific weaknesses that lower reading rate follow:

> *Word-by-word reading* was found to be a symptom of deficiency in the techniques of word recognition and of comprehension. While the retarded pupils were acquiring skill in these two areas, they were given training in phrase reading. It is by thinking in terms of thought units and by having the ear become accustomed to hearing them and the eye to seeing them that the habit of reading in phrases is established. For some pupils all that was needed was simpler material which was interesting and meaningful. For others, a pattern of reading in thought units had to be set. The teacher's demonstration of proper phrasing was the first step. After the pupil had grasped the concept of phrasing, practice was begun. Retarded readers enjoyed reading aloud with the teacher and then continuing alone in the same rhythm while the teacher listened.
>
> *Excessive articulation* occurred frequently among the poor readers. Often in his zeal to read, the retarded reader resorted to vocalization or subvocalization. Whispering and lip movement are evidences of excessive articulation that are easily observed; but articulation sometimes occurs in forms that cannot be heard or seen. Throat and tongue movements are used to some degree as a pupil sounds words to himself. Pressing the lips together or pushing the tongue against the roof of the mouth helps control such movements. More important than a direct attack upon these symptoms, however, is the development of the concept of reading as thinking.
>
> *Pointing*, a characteristic of very immature readers, was observed occasionally even among retarded junior high school pupils. Training in reading by phrases reduced the tendency to point to each word. It was explained to the pupil that the eyes actually are slowed down in traveling across a line of print as they wait for the finger to move from word to word. If pointing resulted from an attempt to concentrate on difficult words, it was necessary to change to simpler material and to develop word recognition techniques.
>
> Sometimes pointing was accompanied by head movement and in a few cases head movements persisted after pointing had ceased. Instead of following a line of print with his eyes only, the retarded reader turned his head slightly as he progressed from one fixation point to the next. An awareness of this habit and a realization of its effect upon speed were generally sufficient to eliminate it.

c) Timed exercises. Speed can be developed through timed exercises similar to those used for determining reading rate. Many types of reading material can be adapted for practice in acquiring speed. In some reading textbooks, timed exercises are included at regular intervals. Short practice exercises that lend themselves well to timing are very helpful too. (See Appendix B, Section I.) In using such exercises with a slow reader, the teacher usually does not follow the time limits suggested by the authors but adjusts instead to the pupil's rate. Gradually the time allotment which is set by either the pupil himself or by the teacher is reduced until an optimum speed is reached. Care must be taken to avoid gains in rate at the expense of comprehension; a good relationship between these factors should be the goal. By keeping a record of his comprehension score and of his rate, the pupil is motivated to improve.

d) Controlled reading. Machines which control the element of time have been used in various clinics and school programs to promote speed of reading. While the pupil reads exposed words, phrases, or lines of print, he is forced to read more and more rapidly until his optimum level is reached. Some mechanical devices that have been used for this purpose are the Metronoscope, the Flashmeter, the Reading Rate Controller, and the Harvard Films. Although these machines have been used successfully by some people, most of them were not recommended for the special reading programs at the junior high school level. There were several reasons for this; it was felt that:

> Available money might be spent more effectively in the purchase of a wide variety of work-type and extensive reading materials.
>
> Since most retarded readers in the junior high school are functioning below a sixth grade reading level, it is dangerous to place emphasis on direct approaches to speed.
>
> For the emotionally disturbed retarded reader, familiar materials and techniques are more appropriate than novel and expensive equipment.

Through the use of simple devices and procedures, reading teachers can help pupils acquire many of the habits and skills developed by means of mechanical devices, for example:

To enforce left-to-right eye movements and to prevent regressions: Move a small card across each line to cover the words just read by the pupil.

To increase eye span: Expose phrase cards briefly; decrease exposure time gradually. Cover the last part of the line of print a pupil is reading and encourage him to complete the line by means of context and peripheral image.

To encourage continuous rapid reading: Move a card down the page to cover the section read as the pupil progresses from line to line, as the Reading Rate Controller does.

Mechanical devices alone will not effect magic improvement in retarded readers. It is the resourcefulness and common sense of successful reading teachers that enable them to make effective use of such equipment and material. In extreme cases of long-continued discouragement, retarded readers may have their interest aroused and hope renewed through the temporary use of mechanical devices. In general, it is extremely doubtful that pupils who do not respond to good teaching and well-selected materials will be aided by these devices.

XIV. Reading and Related Areas

1. Reading and Other Aspects of the Language Arts

Improvement of reading must be sought within the framework of the language arts program. Experience with retarded readers has shown that not only their reading but also their spelling and oral and written expression are poor and that simultaneous emphasis on all these areas is necessary. Since the basic content, language, is the same for all the aspects of the language arts, learning in any one of them affects the others. This interrelationship of learnings is in consonance with the sequential development of language. At first, the baby hears the language spoken around him and gradually learns its pattern and vocabulary. While still acquiring skill in listening, he begins to speak. After the child has gained some facility with spoken language, he starts to read and as soon as printed symbols begin to have real meaning for him he engages in writing. Thus overlapping of the several aspects of the language arts occurs and improvement in one area is dependent upon growth in the others. Thereafter, in normal development, progress is continuous in all four areas—listening, speaking, reading, and writing. It is essential, therefore, that a definite program of language arts instruction be planned for all levels and that it be based on meaningful experiences.

The teacher of reading must be aware of the integration of learning

If a retarded reader acquires a new concept as he listens to an explanation in his English, social studies, or science classes, he is able to bring to oral and written expression and to reading a meaning that he did not possess previously. Thus his potentialities in all language areas have become greater. In the same way, extension of vocabulary, whether it be achieved through reading or listening or by means of guidance given in oral or written expression, enriches the pupil's language equipment and facilitates growth in the other phases of the language arts. Learning occurs only when such integration takes place within the individual.

Direct teaching of skills is necessary

Pupils in the reading project were encouraged to talk and write about their hobbies and other interests characteristic of children of junior high school age. This procedure, in addition to its mental hygiene value, reveals language assets and weaknesses and provides opportunities for direct teaching of techniques and skills. Teachers have recognized that oral communication is an important medium for the retarded reader. Skill in oral expression is acquired when a pupil frequently has an opportunity and a desire to express himself in the presence of an adult who guides him into better ways of doing so. Such guidance is so skillfully given that the correction of weaknesses does not hinder the pupil's voluntary participation in discussions. In a similar way, skill in written expression is acquired. In their creative writing activities, which is generally a satisfying experience, the need for improving penmanship and for learning more about spelling, language usage, and sentence structure became obvious to the pupils in the reading project and motivated learning during the instructional periods that followed.

By the time retarded readers enter junior high school, they have had many undesirable experiences with writing. In response to group pressure, they probably have participated in writing activities that were too advanced. As a result, poor habits of spelling and punctuation have been established and a concept of written expression that is extremely poor has been developed. Instead of expressing his own ideas in writing, the pupil has been copying symbols that have little meaning for him. It is essential that the retarded reader be taught to express his own thoughts simply and correctly. For the junior high school pupil, the writing of material in which the concepts and vocabulary are familiar often leads to improvement in reading. Thus language serves to further the pupil's personal and social needs.

Retarded readers require special help in spelling

Spelling instruction may be given first from the pupil's own spelling needs indicated in his original writings. After the teacher has explored this approach fully, he may use other sources for improving spelling.

By this time, the pupil has become aware of the need for improvement and systematic training is begun. Well-organized spelling books may be introduced in his program. Among the effective published materials used in the project were graded spelling workbooks in which words were presented in context and then isolated for study. By means of the follow-up exercises in word analysis and phonics found in these books, pupils developed further skill in word recognition which had a very favorable effect on their reading. The kinesthetic approach inherent in writing aided many retarded readers in remembering words which they had failed to recognize previously. Some of the most serious cases were able to recognize a word only after writing it and observing how the individual letters formed a whole word. The word-analysis techniques developed in spelling sharpened the retarded reader's perception of the words he met in reading.

Common phonograms studied as they occurred during spelling instruction were more readily recognized by the retarded reader when he met them in new words in reading. Parts of words—syllables, base words, prefixes, and suffixes—became familiar through the word-structure study emphasized in the teaching of spelling. Thus the pupil acquired skills and habits which improved his reading. In general, it is not considered wise to include the teaching of spelling in the program of pupils who are *at the beginning stages of reading* lest they develop a spelling approach to word recognition. Many seriously retarded readers had difficulty in acquiring efficient word recognition techniques because they had formed the habit of spelling each new word as they read. The teacher will have to use judgment as to when spelling as a special activity should be introduced.

The typewriter motivates written expression

In the reading project, the typewriter was a good device for stimulating the pupil to attempt original writing. Pupils who were most severely retarded in reading and writing dictated brief stories to the teacher and then transcribed them on the typewriter. They were encouraged to write their own short stories or statements as soon as they had acquired any skill in writing. Errors in form and in spelling were corrected, and the story was rewritten before it was typed. When typewriters were not available, the same procedure was used except for the final step. Pupils made individual illustrated books of original writings which they shared with other retarded readers, or they made a contribution to a group book on an interesting topic such as, "Flying," or "Sports Events." These books were added to the reading room or classroom library and were popular because of their simple style, interesting content, and their use of words that were already a part of the reader's speaking and listening vocabularies. Retarded readers enjoyed the satisfaction of authorship and were frequently seen rereading their own booklets or contributions to the group book. Thus pupils, in writing their own stories, increased their reading vocabularies, acquired many language skills in meaningful learning situations, and gained fluency in reading.

Skill in listening is important for retarded readers

Pupils who have difficulty in reading must rely upon listening more than the mature reader does. To a large extent, they will learn through such media as classroom lectures and discussion, television and radio programs, and sound films. In the reading project it was found necessary to train pupils to become good listeners. They were made aware of their responsibility as listeners in the communication process. They were encouraged to disregard distractions and to overcome tendencies toward half listening. Learning to listen not only to the teacher but also to one another in group discussion was stressed.

Establishing a purpose for listening to material of interest to the pupil was one of the first steps. He listened for an answer to a question, to directions to be followed, for specific information on a topic he wanted to learn about, or for some other reason he accepted. At times he was given an outline to guide his listening and was shown how to enter key words under proper headings to help him recall ideas. As he became proficient, he was guided in making his own outline of brief, well-organized and well-delivered talks. Pupils practiced speaking from original outlines and then checking the outlines of the talk constructed by the small audience. Outlining selected talks heard at home on television and radio programs and then comparing outlines with one another in class is an activity pupils find most interesting. When followed by critical evaluation of the content, it does much to promote growth in intelligent and discriminating listening.

2. Reading and the Various Curriculum Areas

Success in the content areas requires skill in reading

Content is presented to junior high school pupils through various means, such as, experiments, models, pictures, diagrams, explanations, and reading materials. It is in the use of reading materials that many pupils fail to function adequately. The books in each area have their specific concepts, vocabulary, and reading techniques that must be taught to mature readers as well as to those who are retarded. In fact, some of these textbooks are too difficult even for the better readers. Textbooks are difficult to read because they introduce strange concepts in rapid succession, use many terms peculiar to the field of study, offer ideas in summary statements which require a background of details to make them meaningful, and discuss topics remote from the pupils' experiences and interests.

Preparations for the reading of a selection in the junior high school textbooks, therefore, must include—

creating an interest in the material and a purpose for reading it

providing the background needed for comprehending the ideas presented

developing the particular vocabulary and word recognition skills required for reading the text

training in the slower, more analytical type of reading necessary for comprehension of ideas which are presented compactly

Retarded readers need special guidance in reading the materials of the content areas

If the reading of textbooks presents a problem to pupils who have made normal progress in reading, how much more thorough is the preparation needed by pupils who are less adept. Each teacher has to consider the retarded readers in his group and provide the additional help needed by them for full comprehension of the material in textbooks. Although it would certainly be desirable to have the junior high school content textbooks adapted to the levels of the retarded readers, this is not so easily accomplished. It is difficult to "write down" into a single text, for example, the social studies or science content of the junior high school to the level of the very poor reader without losing most of the content. Since the hearing comprehension level of the retarded reader is generally higher than his reading level, the teacher should provide as much instruction as possible through reading to the pupils and discussing the content with them. Much of the social studies and science content can be learned in this way. It is not necessary to wait until the pupils have enough techniques to read the textbooks themselves. Interesting discussion often leads a pupil to spontaneous reading for further information or satisfaction.

Teachers in the reading project gave explanations and read to the group from textbooks, reference books, and literature books. Preliminary training in listening was often necessary. In addition, pupils were directed to significant illustrations in books and magazines and whenever it was possible, strip films, slides, and moving pictures were used. Thus retarded readers acquired the concepts and vocabulary that enabled them to understand the materials of the various content areas. Their reading had to be confined, however, to related materials found in magazines, textbooks, and storybooks of the lower grades.

Vocabulary development in the content areas is important

In each subject, the vocabularies of the textbooks and supplementary materials are comprised of technical terms and words that are of a general nature. Responsibility for the development of words that are common to the reading materials of the various areas of the curriculum is shared by all teachers. It is essential, therefore, that they understand how skill in word recognition is developed. (See Chapter IX of this Guide.)

Words that are specific to the subject must be taught by the teacher of the particular content area. Mere definition and explanation are not enough; full and accurate understanding is an outgrowth of many experiences with the ideas involved. Use of a term in oral discussion does not indicate adequate comprehension of it; a term is not really meaningful to a pupil until he can use it in his thinking too.

There is a need for each teacher to list the concepts and vocabulary basic to an understanding of the unit of study and to plan ways of introducing and developing them. Since abstract concepts take longer to develop, experiences with the ideas involved and the terms for discussing them must be begun well in advance. Pupils thus acquire sufficient background to make accurate generalizations. Only after such preparation will the technical terms found in the reading materials of the curriculum have meaning for the reader.

Through wide reading on a topic, pupils become more familiar with the vocabulary related to the subject. It was found, however, that some retarded readers had incorrect or hazy notions concerning the meanings of many of the words they met in print. In some instances the definition was very limited; for example, the word *cancel* had no meaning except "to cross out" a numerator or denominator. For many retarded readers, a word connoted only a single meaning regardless of the author's use of the word. They did not realize that the meaning of a word might change from sentence to sentence. It was only through discussion and direct questioning that the need for emphasis in the area of semantics was revealed.

Pupils in the reading project were taught the use of the very valuable glossaries found in many textbooks. The definitions given, however, often had to be expanded and the pupil had to be assisted in integrating the particular term with his background of experience. The use of the index was also stressed so that the various references to a particular topic might be located. In reading intensively on one topic, a pupil becomes familiar with pertinent concepts and vocabulary.

Reading techniques must be taught in all areas of the curriculum

If reading is to be used as an approach to learning, pupils must know how to read the materials available to them in each subject. First, they must be able to find out exactly what the author is saying. This means that pupils must possess some skill in word recognition and comprehension as well as in the special skills needed for effective reading in the various areas. These include interpretation of graphs and diagrams, translation of symbols and formulas, analysis of problems in mathematics.

Understanding what the author says is not enough; pupils must be able to evaluate the writer's statements. Critical evaluation includes consideration of the writer's status in the field, his purpose in writing, and his slant or possible bias. There are many opportunities for developing the habit of critical reading in all areas, especially in the social studies.

An excellent discussion of ways of increasing reading competence in content areas will be found in Gray's *Improving Reading in Content Fields.* (See Appendix A, Section I, 15.)

3. Extensive Reading

In the final analysis, the main objective in the teaching of reading to children is to enable them to read many kinds of materials and to stimulate them to read extensively with interest and enjoyment. Wide reading by the retarded reader to fulfill his own purposes was one of the major aims of the reading teachers in the junior high school project. During special instructional periods, the retarded pupil was guided in acquiring basic reading skills and in having successful experiences with reading. During library periods, he listened to excerpts from literature and examined attractive books displayed in such a way that their colorful illustrations aroused his curiosity and stimulated a desire to read. Gradually he developed a realization that books are rich sources of enjoyment and that they satisfy a need for finding out about things of vital concern to junior high school boys and girls. While engaged in voluntary reading at a level that was comfortable for him, he was also really reinforcing the techniques and skills learned during the more intensive study periods.

An abundance of easy reading materials covering a wide range of interest is essential

Included in the out-of-class reading program were various types of literature, such as poetry, prose, biography, adventure, travel, fiction, and informational material in special fields—science, health, sports, hobbies, vocations, and life in our own country and other lands. Pupil-made scrapbooks and original stories and poems with accompanying illustrations had a prominent place in the collection available to retarded readers. It was preferable to have this material in typewritten form. Copies of weekly newspapers for children also were included. These papers were particularly helpful because of the variety of material presented in each issue and the broad range of reading levels covered. In addition, they resemble adult newspapers in appearance and deal with items presented as current events in the classroom, in moving pictures, and on radio and television programs. These special newspapers were acceptable to the older retarded reader who rejected storybooks on a similar reading level.

Some magazines were made available because they contained articles, stories, and cartoons that appealed to the retarded reader and were informative as well. Even though the reading matter in science magazines was difficult, it was found that by examining the illustrations and reading some of the titles and labels and interpreting the charts, pupils extended and clarified many concepts. An intense interest in a particular topic and an active vocabulary in that area enabled some pupils to read at a surprisingly advanced level. One boy who had been doing extensive reading at a third grade level and who enjoyed discussing television was able to read with ease a sixth grade book dealing with that topic. He had developed readiness to read this particular material through numerous experiences shared with his father. The concepts and vocabulary that he was now meeting in print had become part of his everyday life, and he was able to approach this reading situation with confidence and enthusiasm. (Sources of the materials referred to above can be found in Appendix B, Section II.)

Each pupil chooses some material that he wants to read and is able to read

At times, the boys and girls in the reading project were guided in making a choice by the reading teacher who was familiar with all the extensive reading materials. Book reports were not often required, but the boys and girls usually volunteered comments on stories they had enjoyed. Individual lists of books read were kept by the pupils who indicated their general reactions to each one by a mark or statement. During a weekly story hour, there was a sharing of opinion on the week's reading. As guides in oral reporting, the teacher occasionally read reviews of children's books taken from various sources—the book section of the Sunday paper, book jackets, the school library list, and annotated catalogues.

The teacher sometimes introduced new books, read a poem or story in whole or in part, and initiated discussions. Stories in library books or readers, which were related to current moving pictures or television and radio programs, were featured. For instance, cowboy programs and films were used to motivate the reading of stories of a similar nature. Pupils were encouraged to use the public library and to recommend books that were available there. The reading teacher who loved literature communicated this feeling to pupils and even seriously retarded readers developed a wholesome attitude toward books through the program of extensive reading. When retarded readers sought information and pleasure in books, the teacher knew that the reading program was succeeding.

The extensive reading program offers valuable opportunities for audience reading

Pupils in the reading project shared interesting and humorous excerpts from library books or read their own statements summarizing their reactions to stories. Experiences of this kind served as motivation for those retarded readers who were not enthusiastic about voluntary reading. They had something to read aloud that they understood and that they really wanted to share. They practiced reading the selection by themselves and with the teacher so that the final delivery was fluent and dynamic. It was important that the oral reading be successful and satisfying.

After experiencing success in the reading room, pupils attempted to read in the classroom. At this crucial stage in their development, it was necessary to forestall any unpleasant experience that might discourage further effort and even cause regression. If a seventh grade pupil who is skillful in reading at a fourth grade level is required to read orally regular classroom material, he is certain to feel embarrassed and incompetent. To avoid this, pupils in out-of-class reading programs prepared material at a lower reading level but which was related to class topics. Class teachers and reading teachers working together arranged classroom reading situations in which the retarded pupil made a real contribution and gained status with the group and with himself. Neither the retarded reader nor any other pupil should be required to read to others who are supposed to be reading silently the same material that is being read aloud. A child who is forced to adapt his silent reading rate to the slower oral reading rate of another pupil becomes inattentive, fails to comprehend the material, and is prevented from developing an optimum rate of silent reading.

As the reading level of the pupil advances, less stress is placed on oral reading. There is always a place for it, however, in the retarded reader's program, as a means of further diagnosis for the teacher and for purposes of sharing and of esthetic satisfaction on the part of the pupil.

XV. Materials for a Reading Program

To be effective, a reading program must be assured of plenty of carefully selected reading material. The child who reads poorly can become a good reader only through reading. He must have material that he is interested in and able to read, so that he will want to read.

Reading material should be ordered carefully whether for the classroom, the library, or the special reading room. In the junior high school project it was found wise to inspect sample copies of books before a purchase was made. Often, a few copies of a book were tried out for a term before it was ordered in larger numbers or for more than one reading level. Choosing materials is a serious problem when funds are limited. Yet even when sufficient money can be found they should be carefully bought. Rows of little-used books have no justifiable place in any classroom. Materials should be appraised carefully by criteria like these:

> Is it interesting to the pupils? close to their experiences? baby stuff? too mature?
>
> Is the reading level suitable?
>
> Will it answer any specific instructional need in the reading program? give practice in basic skills or encourage extensive reading? unnecessarily duplicate types of material already on hand?
>
> Is the format attractive and hygienic—print, paper, illustrations?
>
> Will it be intimidating to a very retarded reader? too thick? too closely printed? too much print on every page?
>
> Is it useful for individualized instruction?
>
> Is the language life-like, convincing?

1. Important Principles Underlying the Selection of Material

The reading material should appeal to pupils of junior high school age

Pupils in the reading project liked both fiction and nonfiction. Especially popular were stories of sports, adventure, action, mystery, animals, heroes (including prominent figures in sports), and humor. Girls liked stories of home life as well.

Books for independent reading were chosen to suit differing interests. Retarded readers often thumbed through many books before they found one that captured their interest and imagination.

A variety of materials should be on hand

Experience showed that a pupil's reading power improved when he used a variety of materials instead of being limited to one or two kinds. He needed many kinds of reading experiences. Even when classes were grouped according to general reading ability, materials of various kinds and levels were necessary. Pupils who got similar scores on a standardized test often varied strikingly in the kinds of practice they needed.

The types provided may include: stories and books of information for independent reading; readers and workbooks of various kinds; word cards and word games; children's magazines and newspapers; dictionaries; teacher-made or pupil-made materials; a diversity of functional opportunities like the list suggested on page 116; audio-visual aids.

The reading level should be appropriate

Seriously retarded readers often remain retarded because of lack of practice. An important reason why they do not read is that they are usually provided, in their classrooms, with books that are much too hard for them. They need books they can read with ease just as a good reader does.

Materials used for directed reading activities should be about on the pupil's reading level, since the teacher clarifies difficulties of vocabulary, sentence structure or concept. Those used for recreational reading should in general be a year or more below the instructional level of the pupil, since he is to read independently. There are times, however, when pupils can read independently on higher levels. For instance, a pupil who is intensely interested in some hobby can often read books or parts of books apparently too hard for him because he has a solid background of vocabulary and ideas in his field. Recent research has shown that interest frequently overrides vocabulary difficulty.

The readability of a book for a particular child can be roughly determined by hearing him read it. Betts includes these two criteria in a group of nine for evaluating reading performance at the instructional level:

A comprehension score of at least 75 per cent

95 per cent of the running words on a page to be pronounced correctly

(See Appendix A, Section I, 2, p. 449.)

2. Materials Needed for a Reading Program

Teachers often ask for a minimum list of what is necessary for a reading program. A list of this sort must differ with the ability of the pupils and the kinds of reading experiences they need. An abundance of materials should be on hand for two general purposes:

The development of the basic skills and abilities discussed in this bulletin

The encouragement of extensive independent reading

For pupils on the lowest levels, who include the nonreader, the following materials are useful:

Word cards, charts, games
Material based on the children's experiences
An abundance of very easy attractive supplementary material like the Walt Disney series
Readers and related workbooks on a very low level
Workbooks independent of readers for specific practice in phonics and word recognition, understanding of phrases and sentences, general comprehension
Picture dictionaries
Some miscellaneous functional types like those on page 116
Easy junior newspapers
Appropriate testing material
Typewriter (if possible)

Useful materials for pupils on higher reading levels are:

A large number of interesting books and pamphlets for independent reading
Books in the content subjects on levels that the pupils can read
Readers and related workbooks (of several different series and levels if possible)
Workbook or teacher-made exercises for practice in comprehension skills, work-study skills, and phonics if necessary, and for developing speed
Miscellaneous functional types as on page 116
Reference books—dictionaries, encyclopedias, World Almanac, etc.
Newspapers and periodicals on appropriate levels
Test materials
Typewriter (if possible)

3. When Funds for Materials Are Limited

Materials may be used in ways that will extend the number of reading opportunities that they provide. For instance:

Books should be ordered in small quantities rather than in class-size "sets." Three or four kinds or levels are then available for the price of one "set." Ordering a variety of titles in small quantities is desirable even when funds are not limited.

Many books can be used for several purposes. For example, a reader used for directed reading activities with certain pupils can be used for independent reading by others—if they have never read it!

Materials can be shared by several teachers if they can use them at different times of the day.

Sometimes workbooks can be taken apart and the pages mounted. A file of many different exercises is then available for the price of a few books. This is also a good way of supplementing the deficiencies of a particular workbook with exercises from other books or of meeting a particular need (e.g., vocabulary building) with a large variety of exercises.

A number of workbooks are available which do not require that the answer be written in. These nonconsumable materials are economical for repeated use. Even those that require the answer to be written in have many exercises for which answers can be written on a separate sheet or in a notebook. Responses can often be given orally, especially when phonics workbooks are used. Some very retarded readers, however, need workbooks in which they can write.

Worn-out or useless books are sometimes found lying on forgotten shelves in schools. Often, single stories in easy books are found suitable. These can be cut out and fastened in attractive folders. Pupils enjoy reading these "thin" books and designing appropriate jackets for them.

Teacher-made materials should be used to supplement published materials.

4. Materials Other Than Those Specially Purchased

a) TEACHER-MADE MATERIALS. These are valuable because they are designed to give practice to particular pupils in some needed skill. Many books on the teaching of reading give suggestions for exercises. Manuals accompanying readers and pupil workbooks also offer many ideas for teacher-made material.

A duplicating machine such as the Rex-O-graph is a valuable aid in the reading room. The creation of good materials, however, is a time-consuming operation and should be done with care. An easy and rewarding way to make reading materials is to cut out and mount some of the types listed on this page.

Large envelopes with captions like *Read and Laugh* or *True Stories!* can be filled with jokes, cartoons, amusing comic strips, anecdotes, puzzles, and the like, and hung in strategic spots in the classroom for reading at odd moments. An appeal to the child's sense of humor is helpful in building rapport and interest.

b) PUPIL-MADE MATERIALS. Nonreaders or pupils who read on a first or second grade level enjoy dictating and reading about their own experiences. These can be written down or typed by the teacher if the pupil is not yet able to write well enough. If the material is to be handwritten, clear manuscript writing should be used.

A file of material written by better readers—anecdotes, simple stories, book reviews—can be accumulated for independent or oral reading.

c) THE SCHOOL AND PUBLIC LIBRARIES. Libraries are outstandingly helpful in finding suitable material. Public libraries make extended loans to schools. They try to order special titles requested by neighboring schools.

d) AUDIO-VISUAL AIDS. A file of pictures accumulated in the classroom is useful for clarifying concepts. More elaborate aids are often on hand in the school. It is advisable to check on what is on hand and what can be borrowed from other sources. (See "List of Approved Motion Picture Films, Strip Films, Slides, and Stereographs" prepared by the Bureau of Visual Instruction.)

Mounted pictures, cartoons, graphs, lantern slides, strip films, sound films, radio, and television can be utilized for the improvement of reading. Such aids are particularly helpful in enriching pupils' stock of experiences and vocabulary. Pupils can be asked to read aloud the captions of films, slides, or filmstrips. A movie can be followed up with related reading.

e) MISCELLANEOUS. There are many other kinds of material which are close to the pupil's interests and useful in developing study skills. Some of them may be cut from newspapers and periodicals and mounted for permanent use. Usable free materials[1] can be procured from steamship companies, travel bureaus, industrial companies, and various other sources. The following are valuable for making reading functional:

baseball scores
weather forecasts
G.O. announcements
class programs
school newspapers
labels
menus
radio and television programs
movie programs
pamphlets about sports, first aid
advertisements of merchandise
jokes and cartoons
recipes
letters
simple news items
newspaper headlines
school organization guide

directions for making or doing things; for taking trips
high school and job applications
bus maps
street maps
automobile maps
subway maps
tickets
catalogues of sports equipment
telephone books
receipts
calendars
cross-word puzzles
questionnaires
help-wanted advertisements

5. Using Reading Materials

A large supply of reading materials does not of itself assure a good reading program. The teacher who uses them determines their value. A few "Do's" follow.

Do:

Be enthusiastic about pupils' progress and believe that they are going to improve.

Stimulate independent reading by discovering the pupil's interests, helping him choose books, and showing an interest in what he has gotten out of a book when he has read it. "Now get a book and read" is usually ineffective for reluctant readers.

Be sure children understand the purpose for doing specific practice exercises. Junior high school pupils can gain insight into their deficiencies and do a better job when they understand what the deficiencies are and how they can be remedied.

Have constructive discussion of errors as an important part of the learning situation. Marking pupils' written answers to an assignment with checks or crosses should not be the end of that assignment.

Vary reading activities in general and drill material in particular. A single period should be used for several types of reading activities.

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[1] A list of such sources is *Free and Inexpensive Learning Materials*, Division of Surveys and Field Services, George Peabody College for Teachers, Nashville, Tenn. (price 50¢)

Control the workbook instead of letting it have control. Teachers know better than books what exercises are useful for certain children at certain times. Workbooks are more useful when teachers select exercises from any part of a book as needed instead of having pupils begin with page one and go mechanically on to the end.

Let pupils, whenever possible, proceed at their individual rates of progress.

Use workbooks for specific instructional purposes and not as mere "busy work." Much time is wasted by indiscriminate use of workbooks.

Provide some means by which pupils can keep records of their individual progress.

Use practice to follow up specific difficulties found in the pupils' reading. Assign exercises to those who need them rather than to everybody who happens to be in the room.

Remember to have patience and understanding—results do not come over night!

Appendixes to Part Two

Preface to Appendixes

Appendix A – Selected References for Teachers

Appendix B – Materials for Pupils

Preface to Appendixes

As an aid in seeking additional information in the field of reading the following pages are devoted to references for teachers and supervisors. The material is presented in two parts, Appendix A and Appendix B, each of which contains three sections.

Section I of Appendix A consists of books and magazines which are helpful in understanding the problem of the retarded reader. These references are available in the library of the Board of Education and some may be found in teacher reference libraries. Section II includes selected lists that suggest books of interest to retarded readers. Section III of this appendix presents monographs and bulletins which are issued from time to time by various publishers and may be secured upon request.

Appendix B includes books, magazines, and newspapers which pupils have found both helpful and enjoyable. Though this appendix is divided into three sections, the discerning teacher will recognize that the items are interchangeable. Books listed as basic readers were frequently used by pupils as informational material particularly in the science and social studies areas. It is recommended that current catalogues from publishers be consulted for the newest material on the market. Publishers and their addresses follow Section III.

The contents of the sections of each appendix are listed below:

Appendix A—Selected References for Teachers
- Section I—Selected References for a Reading Program in the Junior High Schools
- Section II—Selected Book Lists Helpful to Teachers of Reading
- Section III—Monographs and Bulletins for Teachers

Appendix B—Materials for Pupils
- Section I—Readers and Practice Material
- Section II—Materials for Extensive Reading
  - Fiction
  - Simplified Classics
  - Information
  - Magazines and Newspapers
- Section III—Pupil Reference Material
  - List of Publishers

Appendix A – Selected References for Teachers

Section I: Selected References for a Reading Program in the Junior High School

1. Adams, Fay; Gray, Lillian and Reese, Dora. *Teaching Children to Read.* New York: The Ronald Press Co., 1949.
2. Betts, Emmett A. *Foundations of Reading Instruction.* New York: American Book Co., rev. 1951.
3. Bond, Guy and Wagner, Eva B. *Teaching the Child to Read.* New York: The Macmillan Co., 1950.
4. Bureau of Educational Research. Educational Research Bulletins. New York City: Board of Education, 1941-1949.
   - No. 1—*Individualization of Instruction in Reading*
   - No. 2—*Appraisal of Growth in Reading*
   - No. 3—*A Diagnostic Approach to the Reading Program, Part I*
   - No. 4—*A Diagnostic Approach to the Reading Program, Part II*
   - No. 7—*The Place of Reading in the Elementary School Program*
   - No. 8—*Guiding the Growth of Reading Interests*
   - No. 9—*Practices and Problems in Handwriting*
   - No. 10—*The Informal Appraisal of Reading Abilities*
5. Commission on the English Curriculum of the National Council of Teachers of English. *The English Language Arts.* New York: Appleton-Century-Crofts, Inc., 1952.
6. Denver Public Schools. *Toward Better Reading.* Denver: Denver Public Schools, 1945.
7. Dolch, Edward W. *Psychology and Teaching of Reading.* Champaign, Illinois: The Garrard Press, 1951.
8. Featherstone, William B. *Teaching the Slow Learner.* New York: Bureau of Publications, Teachers College, Columbia University, rev. 1951.

9. Federal Security Agency. Office of Education, Washington 25, D. C.

   No. 18—*Education Briefs.* Characteristics of Seventh and Eighth Grade Children and School Programs for Them, December 1950.

   No. 21—*Selected References.* About Children in Grades Seven and Eight, August 1950.

10. Fernald, Grace M. *Remedial Techniques in Basic School Subjects.* New York: McGraw-Hill Co., Inc., 1943.
11. Fitzgerald, James A. *The Teaching of Spelling.* Milwaukee, Wisconsin: The Bruce Publishing Co., 1951.
12. Fitzgerald, James A. *A Basic Life Spelling Vocabulary.* Milwaukee, Wisconsin: The Bruce Publishing Co., 1951.
13. Gates, Arthur I. *The Improvement of Reading.* New York: The Macmillan Co., 1947.
14. Gray, William S. *On Their Own in Reading.* Chicago: Scott, Foresman and Co., 1948.
15. Gray, William S. *Supplementary Educational Monographs.* Chicago: The University of Chicago Press.

    No. 61—*The Appraisal of Current Practices in Reading, 1945.*

    No. 62—*Improving Reading in Content Fields, 1947.*

    No. 64—*Promoting Personal and Social Development Through Reading, 1947.*

    No. 65—*Basic Instruction in Reading in Elementary and High School, 1948.*

    No. 68—*Clinical Studies in Reading, 1949.*

    No. 69—*Classroom Techniques in Improving Reading, 1949.*

    No. 72—*Keeping Reading Programs Abreast of the Times, 1950.*

    No. 74—*Promoting Growth Toward Maturity in Interpreting What Is Read, 1951.*

    [Supplementary Educational Monographs Nos. 49 through 58 (1939-1944) also contain valuable material on reading.]

16. Harris, Albert J. *How to Increase Reading Ability.* New York: Longmans, Green and Co., 1947.
17. Hildreth, Gertrude. *Learning the Three R's, a Modern Interpretation.* Philadelphia: Educational Publishers, Inc., 1947.
18. Iowa Elementary Teachers Handbook. *Vol. II. Reading.* The State of Iowa, 1943.
19. Kirk, Samuel. *Teaching Reading to Slow-Learning Children.* Boston: Houghton Mifflin Co., 1940.
20. Kottmeyer, William. *Handbook for Remedial Reading.* St. Louis: Webster Publishing Co., 1947.
21. McCullough, Constance M., Strang, Ruth M. and Traxler, Arthur E. *Problems in the Improvement of Reading.* New York: McGraw-Hill Co., 1946.
22. McKee, Paul. *The Teaching of Reading in the Elementary School.* Boston: Houghton Mifflin Co., 1948.
23. National Council of Teachers of English (Boney, C. et al.). *Children Learn to Read.* Chicago: National Council of Teachers of English, 1949.
24. National Society For The Study of Education. *The Forty-Eighth Yearbook.* Part II, Reading in the Elementary School. Chicago: The University of Chicago Press, 1949.
25. New York State Education Department. Division of Elementary Education. Bureau of Curriculum Development. *The Language Arts.* Bulletin No. 1384. Albany, 1950.
26. Norvell, George W. *The Reading Interests of Young People.* New York: D. C. Heath Co., 1950.
27. Robinson, Helen M. *Why Pupils Fail in Reading.* Chicago: University of Chicago Press, 1946.
28. Russell, David H. *Children Learn to Read.* New York: Ginn and Co., 1949.
29. Russell, David H. and Karp, Etta E. *Reading Aids Through the Grades.* New York: Bureau of Publications, Teachers College, Columbia University, 1951.
30. Science Research Associates, 58 West Grand Avenue, Chicago 10, Illinois. *Better Living Booklets, Junior Life Adjustment Booklets.*
31. Witty, Paul. *Reading in Modern Education.* New York: D. C. Heath Co., 1949.
32. Young, William E. "Recent Research on Reading in the Social Studies." *Education.* 62: 18-26, September, 1941.

The following periodicals often contain articles pertinent to reading and the related language arts.

Childhood Education. Association for Childhood Education International, 1200—15 St. N. W., Washington, D. C.

Education. Palmer Co., Publishers, 370 Atlantic Avenue, Boston 10, Mass.

Elementary English. National Council of Teachers of English, 211 W. 68 Street, Chicago, Illinois.

Elementary School Journal. University of Chicago Press, 5750 Ellis Avenue, Chicago 37, Illinois.

English Journal. University of Chicago Press, 5750 Ellis Avenue, Chicago 37, Illinois.

NEA Journal. National Educational Association of the United States, 1201—16 Street N.W., Washington 6, D.C.

Peabody Journal of Education. George Peabody College for Teachers, Nashville, Tennessee.

Public Affairs Pamphlets. Public Affairs Committee, Inc., 22 East 38 Street, New York 16, N. Y.

Section II: Selected Book Lists Helpful to Teachers of Reading

This list has been compiled to guide teachers in the selection of appropriate books for retarded readers.

1. Blair, Glenn M. *Diagnostic and Remedial Teaching in Secondary Schools.* New York: The Macmillan Co., 1946. (Chapter 7, Reading Materials, pp. 168-212.)
2. Board of Education of the City of New York. *Library Books Helpful in Planning Units of Work in the Elementary and Junior High Schools.* (Revised) The Division of Curriculum Development, Bureau of Libraries. Brooklyn 2, New York, 1949.
3. Board of Education of the City of New York. *Suggested List of Books for First Purchase for the Library of 6B Elementary Schools.* Brooklyn 2, New York, 1949.
4. Board of Education of the City of New York. *Suggested List of Books for First Purchase for the Library of a Junior High School.* Brooklyn 2, New York, 1949. (In process of revision.)
5. Cadmus Books with Supply Numbers for the New York City Public Schools. Approved and Listed by the New York City Board of Education. Eau Claire, Wisconsin: E. M. Hale and Co., 1950.

6. Carpenter, Helen M. *Gateways to American History:* An Annotated Graded List of Books for Slow Learners in Junior High School. New York: H. W. Wilson Co., 1942.
7. Cassady, Dicie M. "Easy and Interesting Reading for Retarded Readers in Junior High Schools." *Peabody Journal of Education,* 23:1, pp. 10-17, July 1945.
8. Children's Reading Service. *Annotated List of Books for Supplementary Reading* (Kindergarten–Grade 9). New York: Children's Reading Service, 1953. (Annually.)
9. Doubleday and Company. *Combined List of Library Books for Elementary and Junior High Schools, 1952.* Graded, annotated, and classified. Institutional Department, Garden City, New York.
10. *Horn Book Magazine,* Boston, Massachusetts. The Horn Book, Inc. (Published six times a year, annotated.)
11. Kircher, Clara J. *Character Formation Through Books: A Bibliography.* An application of bibliotherapy to the behavior problems of childhood. Grades 1-12. Washington, D.C.: The Catholic University of America Press, 1945.
12. Los Angeles City School Districts. *Instructional Guide for the Teaching of Reading Improvement.* Publication No. SC-384. (Book Lists for Retarded Readers.) Curriculum Division. Los Angeles, 1948.
13. Lutz, Una Dell. "Books for Severely Retarded Junior High School Readers." *The English Journal,* Vol. XXXIX: No. 8, pp. 442-446, October 1950.
14. Moore, Anne C. *Seven Stories High.* Chicago: F. E. Compton and Co., 1000 No. Dearborn St., Chicago 10, Illinois, 1952. (Frequently revised.)
15. National Council of Teachers of English. 211 West 68 Street, Dept. 100, Chicago 21, Illinois, 1950. *Adventuring With Books, Books For You, Good Reading.*
16. New York State. *Thin Books for Young People.* Albany, New York: The University of the State of New York, 1945.
17. New York State Education Department. *Using Our Bounty.* Bureau of Curriculum Development, Division of Elementary Education, New York State Education Department, Albany, 1952.
18. Slater, Russell. *Books for Youth Who Dislike Reading.* Columbus, Ohio: College of Education, Ohio State University, 1941.
19. Smith, Nila B. "Helpful Books to Use with Retarded Readers." *Elementary School Journal,* 52:390-97, March 1952.
20. Sprague, Lois. "Non-Fiction Books for Retarded Readers in the Upper Grades." *Elementary English.* National Council of Teachers of English, 211 W. 68 Street, Chicago 21, Illinois. January 1951, pp. 28-34.
21. Strang, Ruth, et al. *Gateways to Readable Books:* An Annotated Graded List of Books in Many Fields for Adolescents Who Find Reading Difficult. New York: H. W. Wilson and Co., 1952.
22. Wurtz, Conrad; Sindt, Doris and Keyser, Margaret Lee. *A Bibliography of Reading Lists for Retarded Readers.* Iowa City, Iowa: State University of Iowa, Bulletin No. 640, November 1949.

Section III: Monographs and Bulletins for Teachers

Free source material on the pupil and language arts may be found in the teachers' service bulletins issued at various times by the following publishers and colleges:

American Book Company, Educational Research Service, 55 Fifth Ave., New York, N. Y.
The ABC Language Arts Bulletin

American Education Press, Inc., 11 West 42 St., New York, N. Y.
Education Today

Board of Education, 110 Livingston St., Brooklyn 2, N. Y.
Curriculum and Materials
Guidance News
High Points
School Library Bulletin

Brooklyn College Testing and Advisement Center, Bedford Ave. and Ave. H, Brooklyn 10, N. Y.
Speaking of Reading

Ginn and Company, 72 Fifth Ave., New York, N. Y.
Contributions in Reading

Harper and Bros., William Coading, Dept. ST, 49 East 33 St., New York 16, N. Y.
Inside the ACD (American College Dictionary)

Heath, D. C. and Company, 285 Columbus Ave., Boston 16, Mass.
The Packet

Lyons and Carnahan, 225 South Main Street, Wilkes-Barre, Pa.
Phonics Bulletin
Reading Bulletin

Macmillan Company, 60 Fifth Ave., New York 16, N. Y.
Teachers Service Bulletin in English
Teachers Service Bulletin in Reading

Merrill, Charles E., Co., Inc., 11 West 42 St., New York 18, N. Y.
Latest Trends in Teaching

New York State Education Department, Division of Elementary Education, Bureau of Instructional Supervision, Albany, N. Y.
Letters to Supervisors

Ohio State University, Bureau of Educational Research, Columbus, Ohio.
The News Letter

Row, Peterson and Company, 104 South Lexington Ave., White Plains, N. Y.
Monograph on Language Arts

Scott, Foresman and Company, 114 East 23 St., New York 10, N. Y.
The Supervisor's Notebook
Science Notes
Classroom Activities
Middle Grade Activities
School Briefs Supplements
Teaching Trends
Junior Briefs

Silver Burdett Company, 45 East 17 St., New York 3, N. Y.
Supervisor's Exchange
The Resourceful Teacher

World Book Company, 313 Park Hill Ave., Yonkers 5, N. Y.
Language Arts Leaflets
Test Service Bulletins
Test Service Notebook Series

Appendix B – Materials for Pupils

The books listed here are for pupils' use and may be found either on the textbook list or on the library list distributed by the Board of Education. For convenience, the listing includes the publisher's number which may be used as a guide in looking up the item number and price. With each listing, the approximate reading grade is indicated. It will be noted in the Board of Education lists, however, that many books are available for grades other than those specified here. The selection in this Appendix was determined by the appropriateness of the materials for junior high school pupils retarded in reading. It is suggested that teachers and supervisors examine carefully the elementary school books in order to avoid selecting those with either immature illustrations or unsuitable content. The manuals or guides which accompany the basic readers are not listed separately in this Appendix. These manuals furnish helpful instructional suggestions.

Section I: Readers and Practice Materials

Readers

Publisher's Number	
32	•Betts-Welch; Betts Basic Readers, The Language Arts Series–Gr. 3, 4, 5
478	•Bond-Alder-Cuddy-Wise; The Developmental Reading Series–Gr. 3, 4, 5
483	•Gates, Huber, Peardon, Salisbury; Today's Work-Play Books–Gr. 3, 4, 5
721	•Gray, et al; Curriculum Foundation Series–Gr. 3, 4, 5
483	Huber-Salisbury-Gates; Core Vocabulary Readers–Gr. 1, 2, 3
483	Lent; Aviation Readers–Gr. 1, 2, 3, 4 (Social Studies–Science)
350	McKee; Reading for Meaning Series–Gr. 3, 3-4
348	Roberts-Rand-Lundgren; Let's Read, Book I–Gr. 4, 5 Book II–Gr. 5, 6
328	Smith-Edman-Miller; Invitation to Reading, Book I–Gr. 4, 5
478	Spencer-Horst; Finding New Trails–Gr. 4
478	Spencer-Fritschler; Exploring New Trails–Gr. 5
341	•Witty and others; Reading for Interest–Gr. 3, 4, 5
443	•Yoakum-Hester-Abney; Laidlaw Basic Readers–Gr. 3, 4, 5 (1947 Edition)

Practice Materials

Publisher's Number	
734	Billington; Using Words–Gr. 2, 3, 4, 5 (Language Arts–Spelling)
948	Dawson-Miller; Language for Daily Use–Gr. 4, 5 (Language Arts–English)
300	Gainsburg-Spector; Better Reading–Gr. 7-9 (Comprehension Skills)
115	Gates-Peardon; Practice Exercises in Reading (Comprehension Skills) Book 3, Types A, B, C, D–Gr. 4 Book 4, Types A, B, C, D–Gr. 5
519	Johnson; Reading Skilltexts–Gr. 3, 4, 5 (Reading and Study Skills)
115	McCall-Crabbs; Standard Test Lessons in Reading (Comprehension–Speed) Book A–Gr. 2-4 Book B–Gr. 3-5 Book C–Gr. 4-6
519	McCrory-Watts; Phonics Skilltexts, Book A–Gr. 1-2 Book B–Gr. 2-3 Book C–Gr. 3-4
443	Merton-McCall Readers; Work-Study Skills–Gr. 3-6, 4-7
519	Patton; Progressive Word Mastery–Gr. 2, 3, 4, 5 (Language Arts–Spelling)
638	Sangren-Wilson; Sangren-Wilson Instructional Tests in Reading–Gr. 1, 2, 3 (Vocabulary Development and Comprehension)
258	Smith; Magic Teacher Puzzle Plans Phonics Set; Reading Set
32	Stoddard, Bailey and Lewis (Language Arts–Vocabulary Building, etc.) English One–Gr. 3-4 English Two–Gr. 4 English Three–Gr. 5
912	Stone; Eye and Ear Fun, Books I, II, III, IV (Phonics)
912	Stone-Grover; Practice Readers (Comprehension Skills) Book I–Gr. 3-5 Book II–Gr. 5
666	Wagner-Wilcox-Thomas; The Reader's Digest Reading Skill Builder Series (Comprehension–Vocabulary–Speed) Grade 4, Parts One and Two Grade 5, Parts One and Two
624	Hendricks; Vocabulary Pairs–R981, (Gr. 2) (Gr. 3-5 slow) set
624	McDade; Cross Word Puzzles–CW11, (Gr. 2-5 slow) set
624	McDade; Where Is It?–R967, (Gr. 2-3) set

Unlisted–write for catalogue–The Garrard Press, 119-123 West Park Avenue, Champaign, Illinois:

Dolch, E. W.; Word Recognition Aids:
- Basic Sight Vocabulary Cards
- Picture Word Cards
- Group Sounding Game
- Phonic Lotto
- Group Word Teaching

• Indicates workbook available to accompany reader.

Section II: Materials for Extensive Reading

Fiction, Simplified Classics, Information, Magazines and Newspapers

Specific data regarding the types of books retarded readers found interesting was acquired by an informal survey made in December 1950 in seven junior high schools which were in the project. Experienced teachers were asked, "What books have you found to be most popular with retarded readers? Indicate the approximate reading level for each book." The response proved to be of value in classifying books according to both reading and interest level. The findings also revealed surprising trends among the retarded readers. The girls enjoyed the American Adventure Series almost as much as the boys, and both boys and girls eagerly read the amusing Walt Disney Books. This may be partly explained by the fact that no pressure was put on these pupils to read these books. The books were readily available on the library shelves and the pupils were allowed to browse and select their own reading material for leisure reading. In an atmosphere where all the pupils' difficulties were recognized and accepted, no one "lost face" when he selected a book that was very easy or where the content was traditionally suited to the opposite sex. What mattered most to these pupils was the fact that they could choose, without fear of ridicule or censure, a book that they could read.

The books preferred by the retarded readers as judged by the teachers are listed here on three levels (in terms of the retarded reader). *Low* indicates a reading level of the first and second grade. *Medium* indicates a reading level of the third and fourth grade. *High* indicates a reading level of the fifth and sixth grade.

The books listed here may be found on the library list or on the textbook list. Those on the textbook list are indicated with an asterisk (*). Since any list becomes out of date when new and exciting books appear from time to time, it is recommended that teachers and supervisors consult the excellent annotated bibliographies compiled by various authors and publishers. (See Appendix A, Section II.)

1. Fiction

Publisher's Number	
	Low Reading Level (First and Second Grade)
184	d'Aulaire, I. and E. P.; Foxie
320	Bennett, R.; Shaween and the Gander
184	Bright, Robert; Georgie
478	*Brown, Daisy; Tubby, Tiny, and Top
42	Brown, M. W.; Two Little Trains
350	Burton, V. L.; Mike Mulligan and his Steam Shovel
738	Disney, W.; Dumbo
341	*Disney, W.; Here They Are
341	*Disney, W.; Donald Duck and His Nephews
341	*Disney, W.; Pinocchio
184	Flack, M.; The New Pet
483	*Huber, Salisbury, Gates; The Ranch Book
295	Hudspeth, C. E.; Oregon Chief
519	*Kerr-Ross; First Fairy Tales
885	Leaf, Munro; Story of Ferdinand
483	*Lent, Aviation Readers—Straight Down, Straight Up
184	Macdonald, G.; Red Light, Green Light
478	*Morcomb; Red Feather
42	Schneider, H. and N.; How Big Is Big?
42	Webb, C.; The Story of Noah
	Middle Reading Level (Third and Fourth Grade)
42	Adelson, L.; Who Blew That Whistle?
184	d'Aulaire, I. and E. P.; George Washington
320	Bishop, C. N.; Five Chinese Brothers
483	Brann, E.; Five Puppies For Sale
350	Brown, A. F.; Lonesomest Doll
723	Brown, P.; Crazy Quilt

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* From textbook list

1. Fiction (Continued)

Publisher's Number	
478	*Butterfield and Brown; Morning Star
478	*Butterfield and Brown; Little Wind
42	Cohn, N.; Little People in a Big Country
42	Collodi, C.; Adventures of Pinocchio
184	DeAngeli, M.; Yonie Wondernose
341	*Disney, W.; Bambi
738	Disney, W.; Bongo
341	*Disney, W.; Donald Duck
341	*Disney, W.; School Days in Disneyville
341	*Disney; W.; Mickey Never Fails
341	*Disney, W.; Little Pig's Picnic
341	*Disney, W.; Water Babies Circus
341	*Disney, W.; Dumbo of the Circus
478	*Gifford and Payne; Red Feather's Adventures
320	Gramatky, H.; Loopy
721	*Gray, Artley, Gray; Tall Tales
483	Hader, B. and E.; Big City (New York)
483	Hader, B.; Little Town
904	Heffernan, Crenshaw, Merritt; The Adventures of Canolles
904	Heffernan, Richards, Salisbury; Desert Treasure
135.3	James, W.; Cowboy in the Making
519	*Kerr-Harner-Ross; Giants and Fairies
184	Kipling, R.; Butterfly That Stamped
184	Kipling, R.; The Cat That Walked By Himself
350	*Kissen, F.; The Straw Ox
457	Leaf, M.; Manners Can Be Fun
457	Leaf, M.; Safety Can Be Fun
457	Leaf, M.; History Can Be Fun
42	Lear, E.; Book of Nonsense and More Nonsense

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* From textbook list

1. Fiction (Continued)

Publisher's Number	
457	Lofting, H.; Story of Dr. Dolittle
184	MacDonald, G.; Little Island
457	McGinley, P.; Horse Who Lived Upstairs
198	*Milne; Winnie The Pooh
198	*Milne; When We Were Very Young
198	*Milne; Now We Are Six
350	Olds, E.; Riding the Rails
468	Rifkin, L.; When I Grow Up I'll Be A Flyer
24	*Searles; Fun to be Alive
42	Seuss, D. R.; McElligott's Pool
42	Spyri, J.; Heidi
42	Squires, E. B.; David's Silver Dollar
904	Toles and Toles; The Secret of Lonesome Valley
32	Walters, G.; Steam Shovel That Wouldn't Eat Dirt
483	*Whipple; Airplanes At Work
135.3	Childhood of Famous Americans (63 Titles)

High Reading Level (Fifth and Sixth Grade)

Publisher's Number	
483	Alexander the Magician; Magic Show Book
42	Altsheler, J. A.; Young Trailers
184	d'Aulaire, I. and E. P.; Abraham Lincoln
135.3	Averill, Esther; Daniel Boone
135.3	Barnes, N.; The Wonderful Year
135.3	Barry, J. M.; Peter and Wendy
	*The American Adventure Series:
925	Beals; Buffalo Bill
925	Beals; Kit Carson
925	Beals; Davy Crockett
925	Beals; Chief Black Hawk
925	Beals-McGuire; Daniel Boone
32	Bethers, R.; Can You Name Them?
184	Blanck, J.; Jonathan and the Rainbow
32	Carmer, C.; Hurricane Luck
32	Carmer, C.; Eagle in the Wind
184	Carroll, L.; Alice's Adventures in Wonderland
738	Collodi, C.; Pinocchio
293	*Compilation—Famous Fairy Tales
135.3	Considine, B.; Babe Ruth Story
734	Cook, M. B.; Children of the U.S.A., Stories from the East and North
734	Cook, M. B.; Children of the U.S.A., Stories from the South

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* From textbook list

1. Fiction (Continued)

Publisher's Number	
734	Cook, M. B.; Children of the U.S.A., Stories from the West
341	*Disney, W.; Mickey Sees the U.S.A.
912	*Doyle, C.; Cases of Sherlock Holmes
457	Eberle, L.; The Very Good Neighbors
184	Elting, M.; We Are The Government
123	*Evans, E. K.; All About Us
665	Farley; The Black Stallion
42	Fenner, P. R.; Giants and Witches and a Dragon or Two
42	Fishel, Dick and Medica, Jack; Terry and Bunky Learn to Swim
127	Fisher, L.; You and the United Nations
350	Forbes, E.; America's Paul Revere
42	Gannett, R. S.; My Father's Dragon
925	*Garst, Betts; Cowboys and Cattle Trails
135.3	Graham, K.; Wind in the Willows
135.3	Kleeman, R. H.; Young Franklin Roosevelt
457	Leaf, M.; War-Time Handbook for Young Americans
457	Leaf, M.; How to Behave and Why
521	*Malvern, G.; Jonico's Island
125	McCormick, D. J.; Tall Timber Tales
92	*Nida-Nida; Robinson Crusoe for Young Folks
723	Orr-Holston-Center; Reading Today Series
912	*Patri, A.; Pinocchio's Visit to America
135.3	Renick, J.; Tommy Carries the Ball
32	Retan, W.; Wanted: Two Bikes
571	*Reynolds; Short Stories of Famous Men
571	*Salten, F.; Bambi
24	*Searles; Time to Live
42	Sewell, Anna; Black Beauty
135.3	Shapiro, I.; Steamboat Bill and the Captain's Top Hat
184	Tarkington, B.; Penrod
42	Tousey, Sanford; Davy Crockett
184	Tousey, Sanford; Airplane Andy
320	Wheeler, O. and Deucher, S; Mozart the Boy Wonder
127	Witty, P.; Kohler, J.; You and the Constitution of the United States
519	*Little Wonder Book Series (Gr. 1-5)
42	Federal Writer's Project (Gr. 4-5)
686	**Real People Series
42	Landmark Books (30 Titles)

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* From textbook list
** Unlisted, 6/52

2. Simplified Classics*

Publisher's Number		Vocabulary Level	Adapted by
32	Defoe; Robinson Crusoe Retold	4	Gladwyn
300	Dickens; Oliver Twist	4-5	Greenawalt
	Great Lives	4-5	Law
	Great Moments from Great Stories	4-5	Doyle et al.
	Jackson; Ramona	4-5	Eckerson
	Robin Hood	4-5	Lapman
	Sewell; Black Beauty	6	Punkay
341	Stevenson; Treasure Island	5	Dunshee and Ludeke

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* From textbook list

2. Simplified Classics* (Continued)

Publisher's Number		Vocabulary Level	Adapted by
707	Defoe; The Story of Robinson Crusoe	4-6	Beals
	Famous Story Stories: Treasure Island	5	Beals
	Melville; The Story of Moby Dick	6	Beals
	Swift; The Story of Lemuel Gulliver in Lilliput Land	4-6	Beals
	The Story of Deerslayer	5-6	Beals
721	Blackmore; Lorna Doone	4-5	Jordan, Berglund, Washburne
	Cooper; Last of the Mohicans	4-5	Brown, Moderow
	Dickens; David Copperfield	4-5	Moderow
	Eight Treasured Stories	4-5	Sandrus, Moderow, Noyes
	Huckleberry Finn	4-5	Brown
	Melville; Moby Dick	4-5	Brown
	Six Great Stories	4-5	Moderow, Sandrus, Mitchell, Noyes
	Stevenson; Treasure Island	4-5	Moderow
	Stratton; When Washington Danced	4-5	Moderow
	Twain; Tom Sawyer	4-5	Berglund
912	Baker; Simon Bolivar	4-5	Kottmeyer et al.
	Dickens; A Tale of Two Cities	4-5	Kottmeyer et al.
	Doyle; Cases of Sherlock Holmes	4-5	Kottmeyer et al.
	Poe; The Gold Bug and Other Stories	4-5	Kottmeyer et al.
	Scott; Ivanhoe	4-5	Kottmeyer et al.
	Flamingo Feather	4-5	Kottmeyer et al.
937	**Pixie Books:		
	Alice in Wonderland	4-5	World-famous classics simply told.
	Heidi	4	
	Tom Sawyer	4	
	Treasure Island	5	

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* From textbook list
** Unlisted, 9/52

3. Information

Social Studies*

Publisher's Number	
686	Basic Social Education Series–Gr. 4, 5
345	Better Living Series–Gr. 3, 4
483	Democracy Series–Gr. 2, 3, 4, 5
904	Devereaux and Aker; Living in Our Democracy–Gr. 6
721	Health and Personal Development Series–Gr. 3,4,5,6
42	Landmark Books (30 Titles)–Gr. 5, 6
341	New World Neighbors–Gr. 4, 5
519	Our America Series–Gr. 4, 5
98	Our Country's National Parks–Gr. 5-8
519	Reading Adventures–Book A, Gr. 2-4; Book B, Gr. 4-6; Book C, Gr. 5-6
904	Reading–Motivated Series (Three Titles)–Gr. 4
723	Smith; Social Learnings Readers–Gr. 2, 3, 4
686	The Film-Story Books–Intermediate Grade (May be used with Encyclopedia Brittanica Films, Inc.)
258	Unified Social Studies Series–Gr. 4, 5, 6
571	Whalen and Baldwin; New York Today–Gr. 4
571	Whalen and West; New York Yesterday–Gr. 3-4
937	Winston Social Studies Series–Gr. 3, 4, 5
519	World Geography Readers Series–Gr. 4, 5

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* From textbook list

Note: Many supplementary books dealing with social studies and science topics will be found also on the library list.

Science*

Publisher's Number	
686	Basic Science Education Series–Gr. 3, 4, 5
721	Beauchamp, Williams and Blough; Discovering Our World, Books I, II, III
295	Our World of Science–Gr. 1, 2, 3, 4, 5
24	Rainbow Series–Gr. 1, 2, 3, 4
502	Schneider; Everyday Machines and How They Work–Gr. 5-6
720	Schneider; Young Science Books–Gr. 3, 4, 5, 6
740	The How and Why Science Books–Gr. 1, 2, 3, 4, 5
723	The Wonderworld of Science–Gr. 1, 2, 3, 4, 5

4. Magazines and Newspapers

Many magazines and newspapers may be ordered by requisition. Since the selection varies from year to year, it is suggested that the mimeographed list issued each June by the Bureau of Libraries be consulted for magazines and the mimeographed list issued by the Bureau of Supplies for newspapers. The following list includes those magazines and newspapers which have been popular with retarded readers in the junior high school:

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* From textbook list

Magazines

American Girl
Baseball Magazine
Boys' Life
Junior Natural History
Read and Young America Magazine
United Nations World

Newspapers

My Weekly Reader—Gr. 1, 2, 3, 4, 5

Section III: Pupil Reference Material

Only standard reference material is listed here. In actual practice many of the books listed under the various headings will be in constant demand by pupils for reference and for research.

Publisher's Number	
738	Bennett, D. A.; Golden Almanac
738	Bennett, D. A.; Golden Encyclopedia
—	•Encyclopedias—Many new and attractive ones are available
350	Pyne; Little Geography of the United States—Gr. 5
350	Pyne; Little History of the United States—Gr. 5
184	Scott, A. H.; Picture Dictionary for Boys and Girls
721	•Thorndike; Thorndike Century Beginning Dictionary
721	•Thorndike; Thorndike Century Junior Dictionary

• From textbook list

List of Publishers

Number	Publisher	Address
24	Allyn and Bacon	11 E. 36 St., New York 16, N. Y.
32	American Book Co.	55 Fifth Ave., New York 3, N. Y.
42	American News Co., Inc.	131 Varick St., New York 13, N. Y.
92	Beckley-Cardy Co.	1632 Indiana Ave., Chicago 16, Ill.
98	Bobbs-Merrill Co.	724 N. Meridian, Indianapolis 7, Ind.
115	Bureau of Publications, Teachers College	525 W. 120 St., New York 27, N. Y.
123	Capitol Publishing Co.	139 Fifth Ave., New York 10, N. Y.
125	Caxton Printers, Ltd.	312-316 Main St., Caldwell, Idaho
127	Children's Press, Inc.	Jackson Blvd. and Racine Ave., Chicago 7, Ill.
135.3	Children's Reading Service—Div. of Seasonal Promotion, Inc.	106 Beekman St., New York 7, N. Y.
184	Doubleday and Co., Inc.	Garden City, New York
198	Dutton, E. P. and Co.	300 Fourth Ave., New York 10, N. Y.
258	Follett Publishing Co.	1257 So. Wabash Ave., Chicago 5, Ill.
293	Giant Book Co.	1123 Broadway, New York, N. Y.
295	Ginn and Co.	70 Fifth Ave., New York 11, N. Y.
300	Globe Book Co., Inc.	175 Fifth Ave., New York 10, N. Y.
320	Hale, E. M. and Co.	320 So. Barstow St., Eau Claire, Wis.
328	Harcourt, Brace and Co., Inc.	383 Madison Ave., New York 17, N. Y.
341	Heath, D. C. and Co.	180 Varick St., New York 14, N. Y.
345	Hinds, Hayden and Eldredge, Inc.	105 Fifth Ave., New York, N. Y.
348	Holt, Henry and Co., Inc.	257 Fourth Ave., New York 10, N. Y.
350	Houghton Mifflin Co.	432 Fourth Ave., New York 16, N. Y.
443	Laidlaw Brothers, Inc.	221 Fourth Ave., New York 3, N. Y.
457	Lippincott, J. B. and Co.	East Washington Sq., Philadelphia 5, Pa.
468	Lothrop, Lee, Shepard	419 Fourth Ave., New York 16, N. Y.
478	Lyons and Carnahan	225 So. Main St., Wilkes Barre, Pa.
483	Macmillan Co.	60 Fifth Ave., New York 16, N. Y.
502	McGraw-Hill Book Co., Inc.	330 W. 42 St., New York 36, N. Y.
519	Merrill, Chas. E., Co.	11 W. 42 St., New York 18, N. Y.
521	Messner, Julian	8 W. 40 St., New York 18, N. Y.
571	Noble and Noble Publishers, Inc.	67 Irving Pl., New York 3, N. Y.
624	The Plymouth Press	2921 W. 63 St., Chicago 29, Ill.
638	Public School Publishing Co.	509 13 St., N., East Bloomington, Ill.
666	The Reader's Digest Assoc.	Pleasantville, New York
686	Row, Peterson and Co.	104 So. Lexington Ave., White Plains, N. Y.
707	Sanborn, B. H. and Co.	221 E. 20 St., Chicago 16, Ill.
720	Scott, William R., Inc.	8 W. 13 St., New York, N. Y.
721	Scott, Foresman and Co.	114 E. 23 St., New York 10, N. Y.
723	Scribner's Sons, Charles	597 Fifth Ave., New York 17, N. Y.
734	Silver-Burdett Co.	45 E. 17 St., New York 3, N. Y.
738	Simon and Schuster, Inc.	1230 Sixth Ave., New York 20, N. Y.
740	Singer Co., Inc., The L. W.	249-259 W. Erie Blvd., Syracuse 2, N. Y.
885	The Viking Press, Inc.	18 E. 48 St., New York 17, N. Y.
904	Wagner, Harr, Publishing Co.	609 Mission St., San Francisco 5, Cal.
912	Webster Publishing Co.	1808 Washington Ave., St. Louis 3, Mo.
925	Wheeler Publishing Co.	2831 So. Parkway, Chicago 16, Ill.
937	Winston, John C., Co.	1006-1010 Arch St., Philadelphia 7, Pa.
948	World Book Co.	315 Park Hill Ave., Yonkers, N. Y.